How to Argue Semantics

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Summary

Introduction

Discussions sometimes turns to what exactly we mean by a certain word or phrase. A word is usually more easily used than a meaning or definition is spelled out or a borderline case adjudicated. Why exactly should we say that a tomato is a fruit and not a vegetable and why exactly should we say that subjects in Gettier cases lack knowledge? Because of that discussions often get stuck on the semantic level. The main question of this text will be: how should we argue semantics? How do we amicably and usefully resolve a dispute over the use of language. This is a practical question, if a bit general in its formulation and hence the answers will mostly be formulated in terms of what we could do. More theoretical questions about the nature of concepts, their normativity, whether there are Fregean senses and how all of that relates to our psychology are only taken up when I judge them relevant to this main topic. In this thesis I will argue the following: semantic arguments are of two kinds. One is the pointless kind where we get stuck on semantics that are immaterial to any actual questions we might have. In such a case a range of strategies exist to quickly and simply get it over with. The second kind of semantic argument are partially semantic discussions where the locus of discussion is best understood not as a question over the meaning of a word but as a question of how to understand a certain *project* we are engaged in. A project will be understood as a system of aims, actions, values, views and categorizations that form a coherent whole. An example is medical science which includes a range of specific definitions and categorization, an overarching aim of healing people, and a range of scientific beliefs about the functioning of the human body. A question of whether certain symptoms should count as signs of a certain disease or disorder should be approached not as simply semantic, but as relating to questions of fact (is there a single disorder under this header, or several) and value (is this a problem, should we even attempt to heal it).

Before we get to projects however, first we will have to do some legwork. The reason for this is that a project as I conceive of it, is something of an eclectic concept, which seeks to include many different aspects of semantic discussions. Hence the first four chapters of this thesis will function partially as a helpful catalogue of ways forward whenever one is stuck in a particular semantic discussion. However, there are some important lines that will figure in the discussion throughout. Chapter one will focus on those authors who have strategies that work well with the idea that semantic arguments are pointless, that many answers will do and that we have to get past the semantic argument and on to the substantive disagreements quickly. In chapter two we will look at those strategies that embrace that the word was already defined, by some institution or by common use, and that we'd do best to follow those antecedent definitions. In chapter three we will discuss the relation of semantic disputes with substantive descriptive disputes. In chapter four we will discuss the relation of semantic disputes with substantive prescriptive disputes. There are however, various topics addressed that could not all be neatly partitioned into chapters. This goes for the question of pointlessness which remains a current throughout but also for some topics that didn't get their own chapter at all. Hence there are three important axes along which authors will be discussed that do not quite have their own chapter but are found at different places throughout: the system-axis, the scale-axis and the constructionist-descriptivist-axis. Along the system axis views may be distinguished according to what they think the object of a semantic dispute is. Is it an individual word? A cluster of words? The entire language you speak? Does it also include more than questions about the meaning of words and if so what? As I've said, I will be proposing we look at projects which will be molecular in that they include more than atomistic words but less than the entirety of language, but they will also include matters beyond language such as views, actions and values. Along the scale axis views may be distinguished into whether they regard semantic arguments as matters for particular communities, society-wide discussions or as matters for an individual or a very small group. The answer must obviously be: 'all of the above' but that raises a follow-up question.

Does it make a difference how large the group is. I will argue so. It is much easier to change the way a few people change the use of their language some the time, than to change the same thing for a large group of people all the time. For this reason, when the semantic dispute is had about the use of a word on a larger scale, much fewer options will be available to us to actually change the use of a word and where such options are available, they might require large institutions and widespread change of measurement devices. Along the constructionist-descriptivist-axis views and authors may be ranked based on their predilection to construct a new definition or rather to find some definition already implicitly or explicitly there somehow. When we ask about the meaning of some word you may attempt to figure out how it is already used or how we should want to use it now. It should be said that both of these are reasonable answers to a question, but not to the same question, understood in the same way. Some authors have seen this as rivaling approaches, but others, more reasonably, as complementary approaches. The question here, we will argue[1], is not which approach is better, but which of the many approaches that may be seen as constructionist or descriptivist is better when. The question 'what does that mean?' may be a call for making something more precise, or it may be a call to find out what was meant so far.

Beyond these overarching topics, however, the strategies for resolving semantic arguments will to a degree still be listed eclectically. This is in line with what we argue in the later parts: there is no unique right way to answer or to set about answering the question 'what do you mean by that?' If one is familiar with the range of strategies discussed below one will navigate such discussion with greater ease and with greater freedom. Some people get stuck in one mode of semantic arguing. This may be conceptual analysis or just stipulating what you mean by it or looking for a kind or object to match the word with, or it may be recalcitrantly claiming that a tomato just is a fruit and that's that. It seems however that what words mean is up to us, and hence the way we resolve a semantic argument is up to us. This works doubly so, both because what the words under discussion mean is up to us, but also because the question 'what does it mean' allows for various readings that require different answers. We will need to find out contextually which reading of the question, and which answer, is most appropriate. If this is so, we should expect some residual heterogeneity in any answer to the question of how to argue semantics.

So much for chapters one through four. The last two chapters will not follow particular authors but will be original arguments. In chapter five we will draw various conclusions based on what came before. We will address when semantic arguments are pointless and how pointlessness is to be understood. This pointlessness, I will argue is most obvious when we are clear on which categorizations we prefer to use, but not on which word fits which categorization. When we disagree about which categorizations are pertinent to make to begin with, the discussion is much less pointless. In such cases, we will argue, categorizations are best justified in by figuring in a larger project that hopefully adequately captures a certain aspect of reality and how we would like to relate to it. We will discuss the system thought in its various incarnations and we will argue that the notion of 'meaning' is underdetermined and should continue to be so in philosophical discourse. In chapter six we will propose the notion of a project as a helpful way to think of complicated semantic arguments. In particular, the system thought might help us in cases where it is not just the use of words, but also the use of concepts which is discussed. The idea of a projects will be designed to incorporate the system thought, relations of semantics to both external reality as well as values and actions.

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[1] We will do this in section 5.3.

1. Basic Strategies

In this chapter we will discuss semantic arguments in their more banal form and we will discuss common strategies to resolve them: elimination, embracing homonymy and stipulation. The strategies in this chapter all share a certain impatience with semantic arguments. This impatience may be expressed by the thought that semantic arguments are, at least sometimes, pointless and can best be resolved by cutting through the semantic part of the discussion in a quick and decisive manner. The idea is that the semantic part is to be distinguished from the substantive part of the dispute, which is the important part of the discussion. There is certainly merit to this thought. Everyone will at one point in their lives have been in a semantic argument in the derogatory sense of that phrase. One that drags on and where what is at stake really is either merely how a particular word is to be defined, or is masked by a discussion about how a certain word is to be defined. In this chapter we will discuss strategies for resolving semantic arguments of that kind. In chapters two, three and four we will discuss various ways in which semantic arguments are less trivial and what we should do in those cases. In section 5.2 we will find one important way to characterize the distinction between the pointless and the useful semantic arguments.

In section one we will argue, following the work of Peter Ludlow, that semantic arguments are an inextricable part of language use that we all have to deal with. In section two we will discuss one of the most obvious responses to semantic arguments, which is that they are pointless, to be avoided and shortened where possible. This position rests on a distinction between the semantic and the substantive part of a conversation. We will discuss Chalmers strategy of eliminating the semantic elements of a discussion and Quine's argument that the semantic and the substantive cannot be separated. In section three we will discuss the idea of simply embracing the fact that some words are homonymic, and cutting the discussion short that way. In section four we will discuss stipulation and we will, following Reichenbach, have a first peek at some of the less trivial cases of semantic arguments. We will do so through Reichenbach's notion of the entailed decisions made in stipulating definitions.

1.1 The Ubiquity of Semantic Arguments

I will start of by discussing perhaps the most basic form of a semantic argument which we find in Ludlow's *Living Words: Meaning Underdetermination and the Dynamic Lexicon*.[2] To explain some of Ludlow's ideas we will simply follow the title of his book and discuss meaning underdetermination and the dynamic lexicon. Meaning underdetermination is a state of affairs where a word has a broad, unprecise meaning, which in specific cases allows for a lot of doubt about its precise application. Ludlow argues that this underdetermination applies to nearly all words.[3] His book starts with an elaborate discussion on how to individuate and count the books somebody has written. What kind of editions and essay-bundles get to count as separate books? The conclusion is drawn that there is no straightforward answer. Similarly we can think of any number of commonplace words whose meaning we know vaguely but whose meaning cannot be spelled out precisely in certain regards because it doesn't mean something that precisely. I do not know how broad a chair must be before it becomes a couch, but if the distinction were ever to become important, I could fill in the details appropriately at that time. Ludlow describes this by saying that the lexicon is dynamic, meaning that in individual conversations and contexts most, if not all words acquire a more specific meaning than they have in general. This specific meaning is often arrived at over a process of conversation, stipulation, negotiation or, in the most hostile cases, what Ludlow calls 'lexical warfare'. For example,

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[2] Peter Ludlow, *Living words : meaning underdetermination and the dynamic lexicon*, 2014.
[3] Ibid, 1-7.

in a particular conversation an understanding may be reached that 'knowledge' is to refer specifically to propositional knowledge. Or we may reach the understanding that we do not count publishing an essay bundle as publishing a book. Or we may decide to distinguish translating from interpreting[4] despite that in many contexts a translator and an interpreter do the same job. Such distinctions are not features of words removed from these very specific contexts, and most language users won't ever have considered these distinctions. The good news is that people are generally quite capable of adapting to these subtle modulations of meaning and are quite capable of initiating them when they are called for[5]. In fact, according to Ludlow this process is often unreflective[6]. If Ludlow is right about this, arguing or at least settling semantics is an integral part of our language use. It has to be, because considered apart from context, most words are too underdetermined to be applied to specific contexts. In most cases however, the dispute is settled quickly and easily. The rest of this chapter is best understood as a range of easy strategies that are to be tried first when we fail initially to settle a semantic dispute amicably.

1.2 Elimination and pointlessness

Recently Chalmers has done work explaining precisely what a semantic dispute (or verbal dispute, as he calls it) is. He does so in his essay *Verbal Disputes*[7]. Chalmers appeals to a distinctive sort of pointlessness that verbal disputes seem to have. Chalmers builds on the intuitive idea that the meaning of a word is usually not that important and either masks what is really at stake or masks that there is nothing at stake at all. This leads him to his **method of elimination**. This method proceeds by trying to restate the original dispute, while barring certain terms. If the dispute can be resolved to the satisfaction of all involved by doing merely this, then it was a verbal dispute. If it can be drastically changed or clarified by eliminating certain words, then it was at least a partially verbal dispute. This method of elimination is thus both a diagnostic method and a method for resolving the dispute. A particular variant on the method of elimination is the subscript gambit, which defines multiple versions of some word. Take a discussion on free will which defines 'free will$_1$' and 'free will$_2$' or 'compatibilist free will' and 'incompatibilist free will'. If without the eliminated terminology, no dispute is found, the dispute was verbal and pointless and may be considered resolved. If however the dispute is restated, for example by saying that compatibilist free will is insufficient for moral responsibility than the dispute was not verbal, or at least not with respect to the meaning of the phrase 'free will'.

This strategy is related to the idea that definitions of words are conservative over views held. This is to say that a definition of a word cannot introduce new views. This idea is made precise in logic: a theory T+ is conservative over a theory T if, for any statement in the language of T, it can be proven in T+ if and only if it can be proven in T. Less formally, the new theory is conservative over the old one if it says nothing new in the language of the old theory. If being conservative is taken as a necessary condition of definitions and other purely semantic statement, it is clear in what sense they might be pointless. They say nothing that we couldn't already say in other terms.[8] They might as well

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[4] We will explain this distinction as Kuhn makes it in section 3.3.

[5] Ibid 25-39.

[6] This is certainly not to say that it is always unreflective. Ludlow analyses, among other things, court cases and astronomers discussions about the definition of 'planet', which are highly explicit. More on such cases in section 2.1.

[7] David J. Chalmers, "Verbal Disputes", *The Philosophical Review* 120, nr. 4 (2011): 515–66.

[8] Anil Gupta, "Definitions," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, Summer 2015 (Metaphysics Research Lab, Stanford University, 2015), https://plato.stanford.edu/archives/sum2015/entries/definitions/.

be eliminated, and nothing of substance would be lost, though perhaps, cutting out too many short-hands would make it difficult to discuss complicated subjects.

As a diagnostic tool there are some risks with elimination. This strategy might not prove that a given problem is semantic but merely that it cannot be stated by somebody without using certain sets of words. For this Chalmers introduces the notion of bedrock concepts:

> *In effect, bedrock concepts are concepts so basic that we cannot clarify substantive disputes involving them in more basic terms.[9]*

Candidates for such concepts may be those of 'existence', 'should' or 'experience'. We might also be open to the idea that in some cases there may be a cluster of concepts that can only be explained in terms of one another but not while barring all of them from use simultaneously. If a dispute arises about such a group of concepts it is unlikely to be merely verbal. At some point we should expect to run out of words to describe what we mean by another word.[10]

This picture, sketched in the first half of *Verbal Disputes* presents a strategy which is potent and highly intuitive. For our purposes however, it is also important to explain why this is too simple at least in some cases. If a merely verbal dispute can be effectively defined by its pointlessness and by its being an artifact of using a certain word, then there might not be much interesting to say about how we should argue semantics besides a simple 'don't!'[11] It will be the burden of chapters two through four to make it plausible that, in many cases, resolving and even recognizing a semantic argument requires enough sophistication to merit philosophical attention. In section 5.3 we will have something to say about the difference between the cases where semantic arguments are pointless and those where they are not.

One relatively easy answer would be to follow Quine in rejecting the distinction between the synthetic and the analytic and hence between disputes that are merely verbal and those that are about something substantive. The locus classicus is Quine's *Two Dogma's of Empiricism[12]*. According to Quine all disputes fall into one large category that incorporates some of the pragmatism we are normally willing to use in dealing with semantic disputes and some of the substantive arguing necessary to resolve other disputes.[13] This might save semantic disputes from being trivial, or conversely come down to the claim that all disputes are just as trivial as one another. Quine argues that we should holistically confront any question as a question of how to adjust some larger system of claims and definitions to deal with the residue of substance that he still allows: recalcitrant empirical evidence. Most of our typical substance, including any existence claim, is by Quine demoted to the pragmatic-empirical question of how to predict our experience. Even experience itself cannot be described in isolation, as individual claims even about experience only become meaningful within our broader conceptual framework. This would answer the question why semantic arguments are to be met with anything but elimination but it does so at the price of making the category of a verbal argument completely non-distinct from regular argument.

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[9] Ibid, 550.

[10] Fodor has argued that this moment comes sooner rather than later. According to him, most if not all concepts are primitive and cannot be defined in other terms. This idea we will not explore here. See Jerry A. Fodor et al., "Against Definitions," *Cognition* 8, no. 3 (1980): 263–367.

[11] This is not Chalmers' view. I have merely used his discussion on pointlessness to argue this point. Chalmers allows for semantic discussions where something important is at stake, but doesn't focus on those discussions. See Ibid, 516.

[12] Willard V. O. Quine, "Two Dogmas of Empiricism", *Philosophical Review* 60, nr. 1 (1951): 20–43.

[13] Ibid, section VI.

I will now argue why I do not find the arguments for this view, or the view itself compelling, except in a fairly weak form. Quine's main argument in *Two Dogmas of Empiricism*, appears to be to reject any explanation, metaphysical or otherwise of what analyticity is. First Quine rejects an appeal to the idea that there are meanings, mental or Fregean. The strategy is then to eliminate all words to explain what analyticity is and then to claim that since the cluster of concepts of analyticity, definition, synonym, meaning, etc cannot be defined without appealing to one another the synthetic-analytic distinction therefore cannot work. But surely this way of applying elimination can be carried out until we have proven that words cannot be defined without other words after which we might as well reject any distinction, while we're at it. More likely we should say that we can only sometimes define precisely what we mean and only relative to other terms whose meaning is taken as given. If the whole lingo of verbal argument, analyticity, meaning, etc is foreign to you, or you pretend it is foreign to you as Quine does, a different mode of explanation or teaching will be required for you to start understanding what it means. Since we are all born mute and incapable of interpreting language, we must have acquired our understanding of words in general in other ways than according to the standards Quine imposes on 'analytic'.[14] If a certain distinction or phrase is understood by many people, has unambiguous examples for its referents, and has been used by a community (philosophers in this case) for centuries, then the idea is likely comprehensible and coherent to some degree. It may not be after all, but the presumption should be that it is and any argument that no sense is to be made of a widely understood distinction must be stronger and more clearly articulated than Quine does. An argument in this same vein was more elaborately made by Austin and Strawson in their *In Defense of a Dogma*.[15]

A second problem is ontological: Quine quickly dismisses meanings in terms of either mental states or Fregean senses as unscientific.[16] I am not at all convinced that we should do so. The idea that a word can have multiple meanings, or that multiple words can have the same meaning is fairly commonplace. We may have trouble finding the words we are looking for, or mean something else from what we say. This seems to indicate that there is something distinct from the use of the word, that we do understand to some degree, that constitutes us meaning one thing rather than the other. In addition, we regularly presume that we can deduce one statement from another and that such statements follow regardless of whether we actually make the inference. In fact when we do make an inference, we may do so correctly or incorrectly. Quine seems to dispute this, speaking merely of what we are inclined to say. One wonders whether we should take him seriously on the synthetic-analytic distinction, if we are inclined to say that some things are true by definition. Crucially however, Quine's rejection of this form of following seems to go hand in hand with his rejection of the analytic-synthetic distinction. If analyticity no longer exists anything might follow from anything if we want it to, and Quine explicitly makes room for amending any rule of inference when it suits us. Here it seems to me that the premises of Quine's argument are not nearly as plausible as rejecting its conclusion, even if the argument were valid. A slightly less arid ontology with as of yet mysterious meanings is preferable to rejecting all standards of correctness in favor of what people are inclined

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[14] Quine's main target, Carnap, also complained that Quine has higher standards for defining 'analytic' than for other words like 'true' or for the question of what gets to count as a sentence of a language. See Paul Arthur Schilpp, *The Philosophy of Rudolf Carnap*, The Library of Living Philosophers ; XI (La Salle, IL: Open Court, 1991) 915-922.

[15] H. P. Grice en P. F. Strawson, "In Defense of a Dogma", *The Philosophical Review* 65, nr. 2 (1956): 141.

[16] This is much clearer in the 1951 version of two dogma's. Later versions lack the relevant passage in section 1. For a full defense of Quine's ontological presuppositions see: W. V. Quine, "On What There Is", in *From a Logical Point of View,* (Cambridge, Mass.: Harvard University Press, 1961), 1–19.

to conclude. Hence for the purposes of this essay I will assume that we can meaningfully distinguish a semantic argument from other kinds of arguments.

We may weaken Quine's claims however and say that the distinction between synthetic and analytic claims and hence between a verbal and a substantive dispute is difficult to make in some cases. Most words are used with little reflection on their necessary or sufficient conditions for their use and in many cases it is difficult to state any, even for highly competent language users. In many cases there may be none. Wittgenstein argues that the different referents of the word 'game' share a mere family resemblance. In such cases the question whether a dispute is actually verbal may require some sophistication to adjudicate. This may be either because the boundaries between the merely verbal and the substantive are fuzzy or because they are difficult to know in specific cases. To take an example of Quine: 'everything green is extended'. This sentence seems true but whether this is because of the meaning of the words green and extended is unclear. Even if we are willing to claim that this statement is analytic, because colors can by definition only be properties of extended objects, it seems that such definitions were stipulated only after we became acquainted with color and recognized that such a definition would be sensible. Our color-terminology seems designed to track whatever this phenomenon that we are acquainted with is. We will explore this thought in chapter three, where we will see positive arguments for the relation between the substantive and the semantic.

1.3 Homonymy

The **compatibilist strategy** which we might also call the **homonymic strategy** consists in simply concluding that the word is used in two or more different meanings and that no further discussion is necessary. For example, the word 'kiwi' can be used to refer to a type of bird, a type of fruit, to human inhabitants of New Zealand or to the New Zealand dollar. But since this rarely ever leads to confusion or equivocation, this is not seen as a problem.

In the philosophy of biology some have aimed to apply this idea systematically to talk of species.

> *Biologists offer various definitions of the term 'species' (Claridge, Dawah, and Wilson 1997). Biologists call these different definitions 'species concepts.' The Biological Species Concept defines a species as a group of organisms that can successfully interbreed and produce fertile offspring. The Phylogenetic Species Concept (which itself has multiple versions) defines a species as a group of organisms bound by a unique ancestry. The Ecological Species Concept defines a species as a group of organisms that share a distinct ecological niche. These species concepts are just three among over a dozen prominent species concepts in the biological literature.*
>
> *What are we to make of this variety of species concepts? Monists believe that an aim of biological taxonomy is to identify the single correct species concept. Perhaps that concept is among the species concepts currently proposed and we need to determine which concept is the right one. Or perhaps we have not yet found the correct species concept and we need to wait for further progress in biology. Pluralists take a different stand. They do not believe that there is a single correct species concept. Biology, they argue, contains a number of legitimate species concepts. Pluralists believe that the monist's goal of a single correct species concept should be abandoned.[17]*

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[17] Marc Ereshefsky, "Species", in *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Fall 2017 (Metaphysics Research Lab, Stanford University, 2017), https://plato.stanford.edu/archives/fall2017/entries/species/.

The pluralists could be read as wanting the word 'species' and presumably the concepts of 'tiger', 'sunflower,' 'polar bear' to be systematically homonymic. The exact meaning would then be determined by whichever subfield of biology is being worked in. Thus, for the ecologist a caterpillar is not a butterfly but for the evolutionary biologist a caterpillar is a butterfly. These uses of the word butterfly may coexist so long as they are properly distinguished when it is necessary to do so.

It may seem as though pluralists deny the reality of the species concept but I do not believe this is quite essential to their position. Pluralists may very well believe in real species concepts that 'carve nature at the joint'. What is rejected is not the existence of a species concept but its unicity. There may be a great many joints at which to carve nature, which are all referred to by some species concept but not all the same. We must also distinguish pluralism about concepts or the homonymic strategy from an 'anything goes' approach. Just because there may be multiple valid ways to define the species concept doesn't suddenly make it reasonable to regard lions and butterflies as members of the same species in any sense. Some definitions may be incoherent, or misleading or may not carve nature at any joint when we think it should.

The compatibilist strategy is closely related to the feeling of pointlessness associated with verbal disputes, which we saw last section. The idea that nothing of substance is at stake. Once we clear up our different uses of a word, a dispute may disappear. We are simply talking about different things. Chalmers, who we mentioned in the previous part as well, and who quotes the same passage from James suggests a certain conceptual pluralism where in the neighborhood of a word under dispute there may be multiple interesting concepts to be disentangled. His subscript gambit is one way to make the homonymy explicit. This is certainly a methodologically fruitful idea for philosophers.

We may broaden the scope of this idea via Carnap. Carnap adopts what he calls the *Principle of Tolerance:*

> *Principle of Tolerance: It is not our business to set up prohibitions, but to arrive at conventions.*[18]

The idea is the same as the strategy of homonymy we discussed above, except that it is not applied to individual words but to whole syntactic systems. We will have more to say on Carnap's views in section 3.2. For now, the idea is that various systems of language may be useful and could peacefully coexist. Carnap gives as an example logics with and without the principle of excluded middle. Plausibly intuitionistic logic is more useful for certain purposes than classical logic and vice versa. And other systems yet may be more useful for yet other purposes. Carnap is not interested however, in excluding one way of speaking outright.

1.4 Stipulation

Embracing homonymy might become more difficult to maintain when two different meanings are very easy to conflate. For example, mathematicians talk about the 'natural numbers' and some of them would include the number zero in this set whereas others would not. To avoid confusion, authors or teachers often stipulate which of the two sets they mean for the rest of a book or class. For the other set they often introduce another name like 'non-negative integer'. This we will refer to as the **stipulative strategy**. It is of course crucial when doing this that the stipulation is understood and accepted by the relevant community. I once gave an answer on a math test which involved me stipulating new definitions for two sets which I awkwardly labelled 'Z' and 'Q'. This confused the

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[18] Rudolf Carnap, *The Logical Syntax of Language* (London: K. Paul, Trench, Trubner & Co., 1937), 51.

teacher into thinking I meant to refer to the sets of integers and of the rational numbers, which are commonly referred to with those letters by mathematicians.

In his *Experience and Prediction*[19] Reichenbach says that there are many places in science where it falls upon scientists or epistemologists to point out that what might be thought to be a matter of truth or falsity is actually a mere verbal dispute. Reichenbach takes it that at such a point the question becomes a matter of volitional decision or convention. While units of measurement are an obvious example of a convention Reichenbach has his eyes on examples more difficult to spot.

> *The progress of epistemology has frequently been furthered by the discovery of certain conventional character of certain elements taken, until that time, as having a truth-character; Helmholtz' discovery of the arbitrariness of the definition of spatial congruence, Einstein's discovery of the relativity of simultaneity, signify the recognition that what was deemed to be a statement is to be replaced by a decision.* [20]

Later in the book Reichenbach extends this principle to possible meanings of 'meaning' and discusses which of several formulations of verification-criteria seems to him to be of the greatest importance to human action. He also discusses what to make of notions of meaning that are super-empirical. Even the meaning of 'meaning' comes down to a decision.

However, not all decisions are to be made lightly, just because there is no false answer does not mean that answers should be picked without regard for anything else. Reichenbach introduces the notion of an entailed decision:

> *There is, however, a question regarding facts which is to be considered in connection with the proposal of such a decision. The system of knowledge is interconnected in such a way that some decisions are bound together; one decision then, involves another, and, though we are free in choosing the first one, we are no longer free with respect to those following. To give a simple example: the decision for the English system of measures leads to the impossibility of adding measure numbers according to the technical rules of the decimal system; so the renunciation of these rules would be an entailed decision. Or a more complicated example: the decision expressed in the acceptance of Euclidean geometry in physics may lead to the occurrence of strange forces, "universal forces," which distort all bodies to the same extend and may lead to even greater inconveniences concerning the continuous character of causality.[21] The discovery of interconnections of this kind is an important task of epistemology, the relations between different decisions being frequently hidden by the complexity of the subject; it is only by adding the group of entailed decisions that a proposal respecting a new decision becomes complete.* [22]

Thus, we cannot redefine individual terms or notions willy-nilly. We may redefine a group of them, but it should be carefully figured out what the effects of this will be before we commit.

Now we should be wary that there are sometimes more constraints on certain definitions. Before one can speak sensibly of 'the empty set', 'the king of France' or 'the British man' one must first

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[19] Hans. Reichenbach, *Experience and prediction : an analysis of the foundations and the structure of knowledge* (Chicago [etc.] : University of Chicago Press, 1970), 3-16.
[20] Ibid, 9
[21] The original here contains a footnote referring the reader to the original German edition of Reichenbach's book: Hans Reichenbach, *The philosophy of space & time* (New York, N.Y. : Dover, 1958).
[22] Hans. Reichenbach, *Experience and prediction : an analysis of the foundations and the structure of knowledge* (Chicago [etc.] : University of Chicago Press, 1970), 13-14.

assume that there is such a thing and that it is unique. According to Russell[23], whenever we assert anything about some such thing, we have also asserted that it exists. We can however form all manner of phrases where such things do not in fact exist. 'The king of France' or 'the smallest rational number' are comprehensible phrases but if I define p to be the smallest rational number, mathematicians will complain that 'p' is not well defined as there is no such thing. If I say that 'Charles' will be understood as 'the British man', somebody will ask me, confusedly, which British man. Surely there is no unique British man.

Another constraints on stipulation is formed by honorifics, slurs and in general thick concepts. Here we might say, the entailed consequences are normative judgements. Thick concepts, a notion introduced by Williams[24], are concepts that refer to things that meet both normative and factual criteria. A simple example is 'murder', which applies to acts of killing, and specifically those that are illegal or immoral. Other examples are 'brave', 'selfish' and 'openminded'. Killing in self-defense is not considered murder. In general, when somebody describes an act of killing as murder, we can infer that he disapproves of it. So, the use of a thick concept involves a certain judgement, not only that something factually happened but that there is something right or wrong with it. If the use of thick concepts indeed expresses certain judgements, we cannot simply define them as we see fit. To see why this is, take a thick concept that you disapprove of. I will here proceed with the word 'slut', but if you don't like that example, an analogous argument can be made for 'prude', 'primitive' or another thick concept that you happen not to like. In the case of 'slut', the word as it normally used refers to a woman who has sex with many different men, and signals disapproval her doing so. If you do not disapprove of this, there is no time when the word can be used. This is especially important in philosophical discussions about what we mean by words such as 'knowledge' or 'science'. If we aim to retain the honorific, normative part of 'science', we cannot simply stipulate that everything said by people with PhD's counts as science. When Popper set out to distinguish science from pseudo-science he did not simply mean to define science just for clarity. He meant to set boundaries on when such an honorific was to be applied at all. Saying that the theories of Freud or Marx were unscientific was not just an application of some arbitrary definition, it was a condemnation of their epistemic status.[25] It is of course possible to stipulate away the normative implications of a term as well, but often the normative implications are precisely the battle that one wants to fight.

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[23] Bertrand Russell, "On Denoting", *Mind* 14, nr. 56 (1905): 479–93.
[24] Bernard Williams, *Ethics and the Limits of Philosophy*, Fontana Masterguides ; 6001 (London: Fontana Press/Collins, 1985), Chapter 7.
[25] Karl R. Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge*, 5th ed. (rev.). (London ; Routledge, 1989).

2. Descriptive Approaches

In this chapter we will look at cases of semantic arguments where the impatient attitude that regards them as pointless will be more difficult to defend and where the proposed strategies are more complicated and require more work. We will look in particular at cases where the meaning we are looking for cannot be stipulated but needs to be recovered somehow. First, in section one, we will look at the topic that Putnam has described as the division of linguistic labor. We will look at various institutions and groups that have the prerogative to define words more or less unilaterally. In doing so we will discuss why the scale on which these institutions work transform what solutions are available to them. The second topic, discussed in section two is conceptual analysis. This is a strategy for resolving semantic disputes that appeals to what we already know the word means. This strategy represents a particularly descriptive approach to semantic disputes. I will argue that this strategy answers a question that in a great number of cases, isn't that important. Thereby we will clear the way for better approaches in chapters three and four.

2.1 Institutions and Social Externalism

In this section we will discuss semantic arguments which happen on an institutional scale and the difference this makes to what sort of strategies are tenable. To see this, it is important to reflect on the fact that we often do not know very precisely what we mean by a certain term. I cannot explain exactly what GDP is and how it is measured. Nonetheless I find it informative to know that the GDP of one country is twice as large as the next. I here seem to be relying on others to make sure the word means something specific enough. If me and somebody else who knows equally little of economics had a dispute about the GDP of some country, neither of us might know the meaning of the phrase well enough to provide clear truth conditions for a sentence like 'Dutch GDP is smaller than a trillion dollars'. There are however, people and institutions to whom we can defer for that, and that seems in practice to be enough. Thus, one strategy for resolving a semantic dispute is a strategy of deference to some relevant expert or institution for the definition of a certain term. Putnam discusses this as division of linguistic labor.[26][27] As he has it some expert speakers need to know exactly what 'gold', 'a meter' or 'GDP' means, they need to be able to recognize those things, and distinguish them from superficially similar things. If we take on board a form of natural kind externalism, which we will discuss in section 3.1, we may believe that this division of labor represents, in some cases, the fact that some are better trained to recognize pre-existing natural kinds. If we don't it may be that such experts happen to know more of contingent definitions that were stipulated.

Such people and institutions sometimes decide to supplant their concepts. On May twentieth 2019, some of the SI base unites will be (will have been, by the time this text is finished) redefined by the *Bureau international des poids et mesures*. A slightly altered definition of 'kilogram', 'ampere', 'Kelvin' and 'mole' will from then on supplant the definitions previously used. The new definitions in terms of natural (Planck) constants will replace a system using exemplifying items whose values were to define a standard unit. If the meaning of some word is indeed determined by reference to these official standards, it seems the meaning has changed. Here the stipulative approach takes an externalist twist, as meaning isn't in the head of individual people but can be stipulatively changed by some people or institutions. Besides the International System of Units two of the most obvious cases

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[26] Hilary Putnam, "Meaning and Reference", *The Journal of Philosophy* 70, nr. 19 (1973): 699–711.
[27] Hillary Putnam, "The Meaning of 'Meaning'", *Minnesota Studies in the Philosophy of Science* 7 (1975): 131–193.

of institutional adjudication of verbal dispute are legal interpretation leading to jurisprudence and the *Diagnostic and Statistical Manual of Mental Disorders* (DSM)[28].

On such an institutional scale the way the strategies of chapter one can be applied changes. Consider for example that homonymy will get far more confusing when many of the people who use a certain word are unaware of its multiple technical definitions. When we speak of kilograms it is important that we all speak of the same kilograms. Historically, overcoming widespread homonymy was part of the reason why the International System of Units was set up. This part of the lexicon was regimented to make it more static. Stipulation and even abolition of certain phrases by such institutions may be possible but here there are two problems that may make such a strategy harder.

The first of those problems is that the authority of such institutes is not always accepted. When the international astronomical union decided to stipulate a definition of 'planet'[29] many laymen and some astronomers dissented, arguing in particular that Pluto should still be considered a planet.[30] To make sure such changes work, considerable work has to be undertaken to make sure that the new definitions take effect. The change in the definition of the SI base units has taken years to prepare. An investigation was first mandated in 2007. Over a decade of work was required until the new change itself was accepted. Even after the decision care was required:

> *The SI has been revised several times since its formal adoption by the CGPM in 1960. However, redefining four base units at one time is unprecedented, requiring simultaneous world-wide collaborations in diverse fields of metrology. As in the past, care has been taken to ensure that there will be no perceptible impact on daily life and that measurements made with previous definitions of the units remain valid within their measurement uncertainties. Few users outside national metrology laboratories will notice the changes. Reaching the experimental accuracies and fulfilling the conditions requested in the CGPM resolutions has been a remarkable accomplishment, which will ensure that the SI continues to meet the needs of even the most demanding users.[31]*

This indicates that stipulation by authorities requires some skill to make sure that the change in use reflects the appropriate change in meaning and that the change is no greater than is useful.

The second problem is that while authorities may feel empowered to define a word however they want, the control they think they have might be a bit overstated. Sally Haslanger considers the case of tardiness.[32] Schools track which children are late. The school her son attended had a notion of tardiness which defined children as tardy if they arrived after 8:25 AM. However, tardiness needs to be actually administratively tracked and in this tracking there may be a certain room for forgiveness and clumsiness. Thus, on Wednesdays, Haslanger's son was not registered as tardy even if he was a couple of minutes late. Here, the use of the word tardy is not adequately described by simply citing some definition in the official school rulebook. Stipulating a certain definition for a word without making serious efforts to change its actual use by the people involved, or the way it is measured, may not accomplish anything. This is especially important when the differences in use and definition

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[28] American Psychiatric Association., *Diagnostic and statistical manual of mental disorders : DSM-5.* (Arlington, VA : American Psychiatric Association, 2013).

[29] International Astronomical Union., *RESOLUTION B5 Definition of a Planet in the Solar System*, 2006*.*

[30] Ludlow discusses this example at length in his book: Peter Ludlow, *Living words : meaning underdetermination and the dynamic lexicon*, 2014.

[31] "BIPM - revision of the SI", consulted May 4th 2019, https://www.bipm.org/en/measurement-units/rev-si/.

[32] Sally Anne Haslanger, *Resisting reality : social construction and social critique* (New York : Oxford University Press, 2012), 365-381.

aren't apparent. Similar worries apply not just to institutions but to any semantic arguing on a communal or societal scale. To use another example of Haslanger, few people would say that the concept of knowledge is explicitly gendered, but through various biases and opaque institutions, its use arguably is.[33] Unlike the example of the notion of 'natural numbers' changing the use of words like tardiness or knowledge requires more than just resolving, with a relevant ingroup that can be coherently addressed, to change it. Consider also the technical and administrative work involved with setting up the definitions of the international system of units. One could devise various alternatives to this system. But to make use of those, one would also need to devise alternative measuring tapes, alternative scales. One would have to instruct others in the use of such alternatives before they could interpret those who use this new system. Some of the concepts we use are tied to common practices and they can only be changed or replaced in tandem. All this doesn't mean that changing the meanings of words, or eliminating them is altogether impossible, but it does mean that it requires effort and skill to so on an institutional or societal scale.

In the social domain there is an interesting class of cases where the change in meaning may accompany a change in the phenomenon under discussion. This may be true in the legal context. Where the law defines marriage such that it may only be between men and women, gay marriage cannot, for legal purposes, be carried on under a different name. Two men or two women might still live together but they cannot get the legal benefits of marriage and are in that sense, not married. For something to be a marriage it has to be recognized as such by the law.[34] This is different from a change in meaning to the 'kilo' where things have the same amounts of weight, irrespective of how we speak of them. In the case of social institutions our way of speaking about them, determines to some degree what they are. [35]

2.2 Conceptual Analysis

Another strategy, common in philosophy, is the **analytic strategy**. This strategy seeks to resolve a semantic dispute by appealing to what the word meant already. One may use counterexamples to show that we wouldn't say that the word means this or that. Alternatively, one could study the use of the word by a population empirically[36]. This strategy is common among philosophers who, for example, discuss Gettier cases to get to a definition of knowledge.[37] To see how this works, consider the example set by Gettier. In order to prove that something being a true justified belief is not a sufficient condition for it being knowledge, Gettier set out to construe an example of a true justified belief which we wouldn't call knowledge. What is being analyzed here is specifically the way the word is intuitively used by the analyst. This approach has some immediate problems. It isn't at all clear that it tells us something al that important. If we are arguing semantics we be trying to find out

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[33] Ibid 344-345.

[34] This is somewhat contingent of course. Historically something like the institution of marriage has preceded a more formalized marriage law. As a description of the current situation, however, this way of speaking seems accurate to me.

[35] Herman Cappelen has a similar idea but rather than tying it to institutions, he believes in something called topics which are broader than concepts and which allow disquotational reports on what somebody said even if there is a slight change in meaning of the words used. Thus he argues that we can say *marriage has changed* rather than *'marriage' has changed*, based on this idea. I too think that we can say *marriage has changed* but for different reasons. See chapter 12 of Herman Cappelen, *Fixing language : an essay on conceptual engineering* (Oxford : Oxford University Press, 2018). Closer to my view is Haslanger on social kinds, see footnote 29 and section 4.2.

[36] See for example: David Colaço e.a., "Epistemic Intuitions in Fake-Barn Thought Experiments", SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, 5 april 2013).

[37] The locus classicus on the subject is: Edmund L. Gettier, "Is Justified True Belief Knowledge?", *Analysis* 23, nr. 6 (1963): 121–23.

what the word already meant, but it may just as likely be to decide what the word is supposed to mean for the future. The standard use may not be called for in any number of specific contexts, or it may be in all manner of ways misleadingly or biasedly used. More importantly, when litigating the meaning of words, the answer that would be found in a dictionary, that tells us how it is normally used may just not be what we are looking for. This means that it may be worth asking what conceptual analysis is specifically good for and in which contexts it may be used. In this section we will look at reasons to think that the way we normally use words is important to investigate, for certain purposes. For this we will mainly explore the views of Austin and what he calls 'linguistic phenomenology'. After looking at Austin we will look at a philosopher who, I will argue, overestimates the importance of language as commonly used, in Strawson. I will now introduce the views of Austin through a brief detour:

Austin's basic idea is that analysis may be useful if we believe that the normal use of the word gets something right which it is worth exploring further. As an example, in Plato's *Republic,* Socrates and Glaucon are discussing the nature of sophrosyne (σωφροσύνη). This word is usually translated as virtue, self-control or temperance but it is difficult to translate. It seems to fill the role of a supreme virtue. Socrates discusses the phrase 'self-control'. He says that he has difficulty making sense of this, as it sounds as though one can only control something or someone else. However, he considers this phrase a track or clue in the language, left by sophrosyne. Here, Socrates is in an early stage of discussion where many concepts are still unclear. Stipulating away certain ambiguities runs the risk of stipulating away something valuable and as of yet difficult to express. For this reason it pays to be attentive to the many connotations and ambiguities that a pre-theoretical concept has.[38]

Another reason to be conservatively inclined, and hence to value analysis of existing language, is that introducing neologisms and precise definitions might limit the range of thought and the complexities of concepts, that has slowly developed into the language we use. Orwell notes for example the difference between the words 'comintern' and 'communist international':

> *The words Communist International, for instance, call up a composite picture of universal human brotherhood, red flags, barricades, Karl Marx and the Paris Commune. The word Comintern, on the other hand, suggests merely a tightly-knit organisation and a well-defined body of doctrine. It refers to something almost as easily recognised, and as limited in purpose, as a chair or a table. Comintern is a word that can be uttered almost without taking thought, whereas communist international is a phrase over which one is obliged to linger at least momentarily. [39]*

Here, the more historical and natural phrase is arguably also the more thoughtful as well as the more explicit. It more easily reminds us of the bigger picture of what we are doing.[40]

The idea that there is something valuable in ordinary language was comprehensively argued by Austin. For that reason, he argues in favor of studying ordinary language. Austin was particularly worried that philosophical discussion often included an undue schematization and simplification of ordinary language. He therefore argues for what he calls linguistic phenomenology. With that he

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[38] Plato, *Republic*, in *Plato: Complete Works* (Hackett Publishing, 1997), 430d-431a. Note that in referencing Plato I will use Stephanus numbers rather than page numbers.

[39] George Orwell, *1984* (London: Martin Secker & Walburg Ltd, 1949), 321, appendix.

[40] George Orwell, *Politics and the English Language*. Orwell notes that conservatism is not quite the point. His complaint isn't specifically with ad hoc introducing neologisms, but with the style of these neologisms and the way in which they abstract and overcomplicate our language. This makes it easier to think sloppily and to hide things from ourselves.

means a detailed analysis of the various aspects and subtleties related to using a particular phrase. Austin for example has detailed analyses of the common uses of words regarding our senses[41] as well as excuses[42]. He seems to believe that the common use of language on these topics is better suited for describing what we encounter than most philosophical talk on these issues which he thinks is oversimplified.

> When we examine what we should say when, what words we should use in what situations, we are looking again not merely at words (or " meanings ", whatever they may be) but also at the realities we use the words to talk about: we are using a sharpened awareness of words to sharpen our perception of, though not as the final arbiter of, the phenomena. For this reason I think it might be better to use, for this way of doing philosophy, some less misleading name than those given above-for instance, " linguistic phenomenology", only that is rather a mouthful.[43]

It should be noted however that Austin does not believe that we should generally resolve semantic disputes in this manner. He merely thinks that we have much to learn from ordinary language. Ultimately however, this is based on an antecedent belief that in some cases, ordinary language captures a great deal of subtleties better than philosophical jargon. This belief may turn out false after all but to establish that work is needed to first develop an accurate, subtle and charitable take on the ordinary language dealing with a phenomenon.

> Then, for the Last Word. Certainly ordinary language has no claim to be the last word, if there is such a thing. It embodies, indeed, something better than the metaphysics of the Stone Age, namely, as was said, the inherited experience and acumen of many generations of men. But then, that acumen has been concentrated primarily upon the practical business of life. If a distinction works well for practical purposes in ordinary life (no mean feat, for even ordinary life is full of hard cases), then there is sure to be something in it, it will not mark nothing: yet this is likely enough to be not the best way of arranging things if our interests are more extensive or intellectual than the ordinary. And again, that experience has been derived only from the sources available to ordinary men throughout most of civilised history: it has not been fed from the resources of the microscope and its successors. And it must be added too, that superstition and error and fantasy of all kinds do become incorporated in ordinary language and even sometimes stand up to the survival test (only, when they do, why should we not detect it?). Certainly, then, ordinary language is not the last word: in principle it can everywhere be supplemented and improved upon and superseded. Only remember, it is the first word.[44]

We must indeed watch our that the phenomenology of language is not just formed by a long history of wise ancestors but just as much by a long history of prejudiced, ignorant, bigoted and stupid ancestors. For this reason Austin seems relatively conciliatory with other modes of analyzing or improving on language. It is simply that he doubts that the improvements are always or even usually better than what came before. He doesn't argue, however, that they never are.

Austin, and similarly, Plato and Orwell, have an account of conceptual analysis/the analysis of natural language that takes this sort of analysis to be 'the first word' in any (philosophical) discussion. This

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[41] J. L. Austin, *Sense and Sensibilia* (Oxford : Clarendon Press, 1965).
[42] J. L. Austin, "A Plea for Excuses," in *Philosophy and Linguistics*, ed. Colin Lyas, Controversies in Philosophy (London: Macmillan Education UK, 1971), 79–101,.
[43] Ibid.
[44] Ibid.

makes sense of conceptual analysis as an aid in a broader philosophical discussion. It does not, however, make it possible to take conceptual analysis as the last word on broader philosophical discussions, nor as the only and final word on solving semantic disputes. For this, a stronger account of the primacy of natural language and intuition needs to be given. Such an account can be found in Strawson. In a text on Carnap's notion of explication Strawson argues that non-analytic strategies like explication and Carnap's formalisms will rob language from its life and cannot help us solve philosophical problems.

> *The point I am making is twofold. First, in so far as the purpose of a constructed system is philosophical clarification, the extra-systematic remarks, so far from being-apart from the minimum necessary to fixing the interpretation-comparatively unimportant trimmings, are just what give life and meaning to the whole enterprise. Second, these extra-systematic remarks must include exercises in just that method to which system-construction appeared as a rival.*
>
> *(…)*
>
> *If these things are true, it follows that typical philosophical problems about the concepts used in non-scientific discourse cannot be solved by laying down the rules of use of exact and fruitful concepts in science. To do this last is not to solve the typical philosophical problem, but to change the subject.[45]*

This is in a text on Carnap. As Carnap points out, his use of the word 'clarification' is different from his use of the word 'explication', and the two approaches are not in his view rivals[46]. Strawson reads Carnap specifically as trying to supplant ordinary concepts with scientific ones. While Carnap sometimes aims to do so, this seems like a mischaracterization of his view.

Despite these misunderstandings between Strawson and Carnap there is still an important difference. Strawson, as we saw, thinks that constructed languages and systems do not exist independently from natural languages. Carnap however, thinks that they could, in principle be acquired wholly independent from our natural language.[47] It is not altogether clear to me what the relevant relation of dependence here is. Carnap implicitly takes it to be the inability to learn one without the other. Strawson talks about where the life and meaning of the enterprise of constructing a language comes from. Carnap might have replied that the 'life and meaning' come from something independent of either language and is simply captured better by one of the two. More likely, Carnap does not believe that there is a single thing which gives life and meaning to the language, but many different things and that some language systems are better optimized for one purpose than another. I am inclined to agree with Carnap here for the following reason. Most forms of specialized jargon do not depend on common language but on a specific field of objects which common language can barely if at all describe. Strawson is specifically worried about the nature of philosophical problems which he takes to be stated in common language. This may be true for some philosophical problems but questions about how to individuate transcendentals, do require specialized jargon with no clear counterparts in common language.

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[45] Paul Arthur Schilpp, *The Philosophy of Rudolf Carnap*, The Library of Living Philosophers ; XI (La Salle, IL: Open Court, 1991), 68.
[46] Ibid, 933-934.
[47] Ibid, 938.

A different way to understand Strawson's worry is found in Cappelen who hones in on the phrase 'to change the subject'[48]. Can rephrasing a question answer it, or does it merely change the subject. First, this objection only applies if we are in the middle of a conversation, broadly understood, rather than trying to start a new one. Within arguments, equivocation is to be avoided and within conversations broadly, it is poor form to abruptly change the meaning of the words, especially if this completely changes the subject. That said, there may be reasons to do so anyway. We discussed Ludlow earlier who has it that semantic discussion is an unavoidable part of any discussion because words are generally too underdetermined in their meaning to server the purposes of any one specific conversation. Carnap is conciliatory and stresses that clarification and explication can and must coexist.

This is certainly part of the answer but another important part is to bite the bullet. Sometimes changing the subject, at least a bit, is the best way to answer a question, or at least to help the person who asked the question. This is when the question is the result of conceptual confusion. By this I mean a state of affairs where the concepts one employs are insufficient or misleading for the purposes of discussing a certain topic.[49] Conceptual confusion of the sort that might lead one to ask for clarification is different from simply asking about something one doesn't know. When one is conceptually confused there are unavoidably unknown unknowns. These are things we do not know, and we are not aware that we do not know them. When we do not know a concept we cannot realize we do not know it. We may at best express general confusion but we might also ask a confused question. To answer the question directly, may take on board too many of the suppositions or confusions that led to the question. Many questions are asked in a way that is vague or that is premised on implausible or false suppositions or on wrong value judgements. When somebody asks whether morality is subjective or objective, a meta-ethicist, even one with strong and clear views may have difficulty answering this with a straightforward yes or no. This is because the words 'subjective' and 'objective' are rather vague. It is altogether unclear to me whether I should say that on the views of Korsgaard morality is subjective or objective. I can say that she isn't a moral realist but that she believes that there is a straightforward, universal answer to the question 'what should I do'? With that however, it is not clear to me that her view is best characterized as either subjective or objective, but neither is it clear to me that the question is altogether unanswered.

As a different example, it is often said, usually in introductory calculus classes, that infinity is not a number. This may be defended on the grounds that in the common number sets and fields like the integers, the real numbers, complex numbers, the quaternions etc there is no element named infinity to be found, or on the grounds that there is no unique infinite cardinal or ordinal number but many. The fact that I can defend such a claim on such divergent grounds is suspicious enough. But worse, we might also argue that it is possible to add elements named ∞ and $-\infty$ to the real numbers, define their multiplication and addition and topological properties and discuss the resulting structure.[50] In this structure there clearly is an element named infinity and the elements of this structure are plausibly called numbers. Similarly and element named ∞ may be added to the complex number plane to yield a two-dimensional sphere. In such senses infinity may be a number after all. The

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[48] Herman Cappelen, *Fixing Language : An Essay on Conceptual Engineering* (Oxford : Oxford University Press, 2018) chapters 9-11.

[49] This notion has close affinity with that of a category mistake, as discussed in Gilbert Ryle, *The Concept of Mind* (Chicago : University of Chicago Pres, 1984), 17-20. However I prefer 'conceptual confusion' since it allows me not to individuate the mistakes, which in practice is hard and often unneeded, but merely to diagnose a general problem with certain ways of thinking.

[50] As an example of this see: René L. Schilling, *Measures, Integrals and Martingales*, Repr. (Cambridge [etc.]: Cambridge U.P., 2007), 59.

problem here is that the word 'number' is not at all clearly defined, referring generally to elements of a family of sets that mathematicians study. And indeed in most of those sets, certainly in all those non-mathematicians will encounter, there is no element named infinity to be found. More likely, the statement that infinity is not a number, is to caution novices that common notation employing the symbol '∞' usually only signals divergence, rather than convergence to an element of the real numbers. If taken literally the question of whether infinity is a number can only be answered by a complicated explanation that makes it clear why the question has no straightforward answer.

The point is, that 'clarifying' can apply to the literal question, but also to clarifying the subject matter. And clarifying the subject matter may teach us that the question requires reformulation or just cannot be answered in any straightforward sense. In such cases, insisting that we address something in the terms it was once phrased in is counterproductive. In the following chapters I will discuss two general reasons why changing the subject might be in order. The one sort of reason is theoretical, the discussion is founded on incorrect suppositions or theories. The other sort of reason is practical, some of the terminology is thick, or the pragmatics tied up with it is undesirable. Following Kuhn in section 3.3 we will argue that in some cases the learning of new language coincides with the learning of new concepts.[51] Since in some cases conceptual confusion is best addressed by adding new concepts or replacing a group of them rather than redefining one of them, merely trying to clarify the use of existing language may well be utterly beside the point.

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[51] For related reasons Feyerabend seems to have argued *in favor* of semantic instability in science. According to him it would help shake up the entrenched views of scientists and hence lead to scientific progress. For discussion see part 3 of: Eric Oberheim and Paul Hoyningen-Huene, "The Incommensurability of Scientific Theories," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, Fall 2018 (Metaphysics Research Lab, Stanford University, 2018), https://plato.stanford.edu/archives/fall2018/entries/incommensurability/.

3. Language and the True

Recall that in section 1.4 I named some constraints on stipulating definitions. We have seen three types of constraint on stipulation: entailed decisions, assumptions of being well-defined and value judgements inherent in thick concepts.[52] The next two chapters will discuss these three constraints, broadly understood, and flesh out what happens when they are taken seriously. Chapter three will be about the relation between the meanings of our words and a reality out there which we are trying to describe. Chapter four will be about the relation between the meanings of our words and the normative context of the actions we undertake and the politics of language. In both chapters we will see that philosophers, most notably Wittgenstein, Carnap and Kuhn have emphasized the need to discuss not just the meaning of individual words but of entire languages, paradigms or language games. Such systems may include not just words and their meanings but also assumptions and value judgements made, actions taken, and more.

Here in chapter three I will discuss three approaches to the relation between language and reality. The approach in section one will be that of semantic externalism as defended by Kripke and Putnam. The idea is that there are certain individuals and kinds out there named by our words. When we discover new things about these individuals and kinds we also discover more about what these names we use refer to exactly. Focusing on this aspect, the role of what we think we mean is marginalized by these authors. 'Meaning just ain't in the head'[53], as Putnam put it. Instead the meaning of the words we use is mostly constant and mostly fixed by the categories that exist in the world, regardless of how much we know of those categories. Using criticisms by Dupré and Kuhn I will argue that this view cannot work in most cases as most words are used to describe the world as we understand it, regardless of how it is. This means that when our understanding of the world changes, the categorizations we used to make aren't just transformed individually but may be schematically replaced. This means that we have little reason to suppose that whatever kinds are out there will fit our categorizations even roughly. In section two I will discuss the approach of Carnap. At first we will look at explication, the idea is to take language as it is used and make changes to it to fit a more particular purpose. Then I will argue that Carnap's views are best understood when contextualized as language planning. This takes the focus away from changing individual words and towards designing systems of language for particular purposes. In section three I will discuss the views of Kuhn, specifically his notion of a paradigm. A system of related definitions, views, methods and more, that binds together a scientific community. We will see that Kuhn argues that such systems must sometimes be considered wholesale, the linguistic elements and the non-linguistic elements together.

3.1 Natural kinds and Externalism

We are exploring the relation between language and truth or reality. One famous way to look at this, is that what words mean is determined by a certain natural kind or individual thing that it refers to. The standard example is water, which is the same as H2O. This example is introduced by Hillary Putnam in his articles *Meaning and Reference*[54] and *The Meaning of "Meaning"*[55]. The idea is that 'water' has referred to a certain substance since time immemorial or since some ostensive moment that somebody pointed at water and said that that stuff, whatever it is exactly, is water. With the

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[52] We mentioned more constraints resulting from an institutional or societal scale in paragraph 2.1.

[53] Hillary Putnam, "The Meaning of 'Meaning'", *Minnesota Studies in the Philosophy of Science* 7 (1975): 131–193.

[54] Hilary Putnam, "Meaning and Reference", *The Journal of Philosophy* 70, nr. 19 (1973): 699–711.

[55] Hillary Putnam, "The Meaning of 'Meaning'", *Minnesota Studies in the Philosophy of Science* 7 (1975): 131–193.

development of molecular theory it turned out that this stuff fell under the natural kind of H2O. This was not a stipulative definition, but a discovery of an antecedently existing and already partially recognized natural kind. Let's refer to this way of dealing with disputes over meaning as a **ostensive strategy** or **natural externalist strategy**. The most important philosophers associated with this view are Putnam, Kripke and Aristotle.

Putnam, as stated, introduces the 'water' example. He asks us two imagine an earth, mostly identical to ours, where English is spoken too, which differs primarily in that all water there is not actually H2O, but is made of molecules of a different chemical composition called XYZ. On this twin earth XYZ is called 'water' as well and it serves all the intents and purposes which water serves. Nonetheless, Putnam argues, we should not say that it is water (nor should the inhabitants of twin earth say 'H2O is water'), because our word 'water' refers to H2O. The reason is that our word has "an unnoticed indexical component"[56]. The meaning of 'water' is determined not just (or not at all, according to Putnam[57]) by how we understand it, but by bearing a certain sameness relation to water "around here". This sameness relation is determined by the kind that water actually is. H2O here is the same liquid as H2O on the other side of the planet, but not the same as on the twin Earth because of the difference in natural kinds that nobody who uses the word needs to know about. Putnam makes it explicit that on his view, 'water' has had this meaning since well before the discovery of anything close to modern molecular science.

Kripke defends the same in his *Naming and Necessity*[58], and has similar views about naming individual objects. Many people, he argues, can refer to Aristotle or Julius Caesar just fine without being able to name a single feature that distinguishes one of them uniquely. Kripke jokes that it is 'a tribute to the education of philosophers' that they can believe that people can give definitions in terms of necessary and sufficient conditions for the words they use. According to his views, 'Aristotle' names a person to whom the reference has been fixed by a long chain of historical use back to a moment when the reference of the term 'Aristotle' was fixed. 'Fixing a referent' is a phrase explicitly introduced by Kripke. It means to fix an individual to a name without thereby giving necessary conditions for being that individual. As an example of how this works, Kripke uses Frege's example of the Morning Star and the Evening Star and claims that these are necessarily numerically identical. While it is not necessarily true that the last light on the sky visible in the morning is identical to the first in the evening, it is necessarily true that the Morning Star is the Evening Star. This is because the phrases 'last light on the sky visible in the morning' and 'first light in the sky visible in the evening' do not define the names 'Morning Star' and 'Evening Star'. If a new light were to adorn the skies earlier in the evening the planet Venus would still be named the 'Evening Star' because the reference of 'Evening Star' to the planet Venus was fixed by that description, true at the time. Since the individual planet Venus named by both 'Evening Star' and 'Morning Star' can never fail to be itself, it is necessarily true that the Morning Star is the Evening Star. At the same time it is a contingent fact that the last light on the sky visible in the morning and the first light in the sky visible in the evening are the same object.

It is important to see the metaphysical commitments that are involved in such a view. Indexicality is not a trivial matter. Merely pointing in the direction of a book and saying 'that' need not suffice. Did I point at the book, or a page or a letter? And is the sameness the book has to other books more relevant in determining the book-kind than the sameness it has to another object of the same color?

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[56] Hilary Putnam, "Meaning and Reference", *The Journal of Philosophy* 70, nr. 19 (1973): 699–711.
[57] Note that Putnam also endorses the idea that linguistic labor can be distributed, discussed in section 2.1. In such cases meanings may be in some heads.
[58] Saul Kripke, *Naming and Necessity* (Harvard University Press, 1980).

Note that this is similar but not quite the same as the questions surrounding the indeterminacy of translation.[59] Our question does not require a person to find out what was meant, it requires that some referent is fixed. Which referent or extension is fixed, needs to be determined not simply by choice, otherwise I would have to understand the extension beforehand in some way, contravening the idea of meaning being out of the head. To counteract the question of whether we referred to the book, the page or the letter we pointed to it could be an option to claim a rigid mereology which has it that the only true individual object there is the book. The page or the letter are mere heaps. This seems wildly implausible. A better option might be to claim that we can recognize mereological units without recognizing what makes them mereological units, nor what makes such a unit the specific individual that it is. Hence, that a tiger is an individual can be recognized without knowing what would destroy the individual as opposed to merely transforming it or other questions relating to what makes it an individual to begin with or what makes it a specific individual. Sometimes an individual is supposed to exist where there is none, the wind god would be one example, the set of all sets that do not contain themselves another. In such cases one could fail to fix the referent at all, and such words might fall out of use once we discover this. It seems rare however, that the common sense mereology that we use is drastically, non-cumulatively revised, even for specialized purposes.[60]

It is harder to deal with similar questions about the sameness relation. For this we will turn to part four of Aristotle's *Metaphysics Zeta*[61]. How do we distinguish the chemical composition as that which determines kinds? First, we should observe that our views on which sameness relations are relevant have drastically changed over time. As the H2O example shows, nobody could understand the sameness-relation of water to other water on any kind of theoretical level, when the word was used in 1750. Nor could anyone correctly discriminate water from any other colorless odorless liquid in all cases at that time. However the reference of the kind was fixed, it must have had a way to make the sameness-relation of some H2O to other H2O more relevant than that of one bit of colorless liquid to the next. This requires that we in some sense distinguish kinds from any number of somehow arbitrary similarities. One way to do this is to say that the kind of an individual can be recovered from the essence of the individual. The essence of an individual is the entirety of what it is for that individual to be, all that it could not lose without being destroyed. Aristotle believes that the essence of something is its kind. Thus the essence of a specific tiger is exactly to be a tiger; as long as it is still a tiger, it still exists. When it ceases to be a tiger, it is destroyed. Thus when we point as a tiger and say, 'things of this kind' we can only be fixing the referent of tigerness. It couldn't fix the kind of stripedness, orangeness, or any other attributes the tiger has that are either contingent given the tigers existing, or that do not fully specify its entire essence. Kripke and Putnam probably do not need all the details of Aristotle's elaborate metaphysics but they do at least need some metaphysics to allow us to fix the reference of kinds, without having any clear notion of what sort of kinds ourselves. Otherwise the reference is no more clearly fixed to tigers than to striped things, orange things, four-legged things or any other class sharing in some random property of the tiger we pointed to.

To fix on some terminology I will refer to infima species or Aristotelian kinds as all those classifications which are tied to the essence of individuals. I will refer to classifications as kinds if they are in some way the standard classification under which a thing falls, whether through our

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[59] See for example: W. V. Quine, *Word and Object*, New ed., 1 online resource (xxx, 277 pages) vols. (Cambridge, Mass.: MIT Press, 2013, chapter 2.
[60] A possible example could be Ryle who argues that some modes of speaking about the mind unduly reify thinking. He calls this a category mistake. This example is still controversial, however. See Gilbert Ryle, *The concept of mind* (Chicago : University of Chicago Pres, 1984).
[61] Aristotle, *The Metaphysics* (Buffalo, N.Y: Prometheus Books, 1991).

Aristotelian story or another. Kinds, we might say, are those classifications which can be ostensively defined. A type will be any set of things tied together by a non-arbitrary property. I cannot give an exact sense of non-arbitrary. However, it seems that green is less arbitrary than grue[62]. Similarly it seems that sets of several unrelated things are more arbitrary than the classifications of 'real number'. I will name the most arbitrary classifications as sets. These certainly include sets which cannot be defined constructively (if there are any) but also sets like the set of odd numbers, the number seventeen, the planets Earth and Jupiter and my right ear. I will call those sets which are not tied to types or kinds mere sets. We could also call them strict or proper sets. Sally Haslanger calls these sets gerrymandered, which seems like an appropriate metaphor as well.[63]

I've introduced the ostensive strategy as a way to deal with disputes over the meaning of words. How would this work in practice. In the case of the naming of individuals, fairly straightforwardly. Kripke gives the example of the biblical figure Jonah, as described in the book of Jonah. In the biblical account he was swallowed by a whale, got out of the whale, and went to Niveneh to preach that god would destroy them for their evils. This intimidated the inhabitants of Niveneh into pious fasting. God then decided not to destroy Niveneh which angered Jonah. [64] According to Kripke modern scholarship shows almost all of this to be false.[65] Kripke argues that Jonah may not have been swallowed by a whale and may never have gone to Niveneh and may not even have been called Jonah rendering just about everything we believe about him false. Still, he might have existed since there once was an actual person this mostly false story was about. It is this person that we refer to when we speak of Jonah. Hence, if ever we are in doubt who exactly Jonah is, the way to resolve this dispute is to do historical research about this person. We may not be able to find out much but in that case we can simply admit our ignorance. We must be careful here, though, since it seems to be true in some sense to say that 'Jonah was swallowed by a whale'. Kripke cites historical scholarship that tries to figure out where certain stories originated. If those discussing Jonah were studying the stories themselves, they might have said something else. It seems that we may decide to discuss merely the character in the book of Jonah, regardless of his ties to an actual person. This character too is called Jonah. Note that this would not save the view that 'Jonah' may be defined by those properties which we believe about him. Somebody may have entirely false believes about this character, conflating him with other biblical figures. We might say to him, Jonah did not have his family killed and suffered no illness, that was Job. Still, this person may have referred to Jonah. Kripke is right however, to tell us that we can research a figure of whom everything we believe may be false. We may have only the name to go on and to find out who this person was we would first have to track the history of their name.

The case of natural kinds is more dubious. For one, not everyone believes in kinds at all. If the metaphysics underlying this philosophy of language is false it should certainly not guide us in finding definitions. And if it is even possibly false we might still want to have the linguistic resources to discuss it in terms independent of kinds. Secondly, even if we do believe in kinds, it may be a matter

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[62] Grue being defined as being green before time t, and blue from time t onward. It has a counterpart bleen which is blue before time t and green after. Notice that we could in principle reverse which of these we take as primitive. We could define blue as being bleen before time t and grue after. Likewise green would be grue before time t and bleen after. Hence the type status of blue, assuming it actually has one, is probably empirical and cannot simply be concluded from the fact that it is defined compositionally. These ideas were introduced by Nelson Goodman. For more see: Nelson Goodman, *Fact, fiction, and forecast* (Indianapolis : Bobbs-Merrill, 1973).

[63] Sally Anne Haslanger, *Resisting reality : social construction and social critique* (New York : Oxford University Press, 2012), 365-381.

[64] *Jonah* 1-4.

[65] Saul Kripke, *Naming and Necessity* (Harvard University Press, 1980), 67-78, 87, 160.

of dispute what the kinds are. This theory seems to work fairly well in the case of names since the mereological units that we recognized seem little subject to drastic revision over time. This is not at all the case for our categorizations. John Dupré, in his *Natural Kinds and Biological Taxa[66]*, points out that our ordinary words that are used to classify animals like 'duck', 'falcon', 'whale', 'fish', 'elm', etc. are correlated sometimes with species, sometimes with classifications higher on the taxonomy that biologists use and sometimes with no scientific concept at all. As a result some words can be easily be said to refer to a species, which may be a kind, but those who have come to refer to higher taxa or those which cannot be incorporated in scientific language at all will refer merely to other types or to mere sets. They may come to be defined along lines that scientific taxonomy facilitates or along lines that we find more convenient for any number of reasons, not related to the evolutionary theory in which the scientific classification is embedded. Even in the H_2O example there are complications. For one H_2O describes a molecule whereas water is a continuous substance made of mostly H_2O. In practice, the water that comes from tabs is purified to a certain extent and is mostly but not exclusively H_2O. Even the fact that water is mostly correlated with H_2O seems somewhat coincidental. The word 'alcohol' has come to refer to several substances of slightly different chemical compositions. It could have turned out for all we knew that there are two types of water, H_2O and XYZ. All this suggests that when we reshape our language in light of scientific discovery, the new way to think about these words isn't simply to assign them the kind that these words were always connected to. This can at most work for only some of the words and even then, it isn't always plausible to state that a word meant any specific kind beforehand.

When discussing how to interpret authors who believe in phlogiston Kuhn notes that phlogiston either doesn't refer or where referents can be saved they are now believed to fall into heterogeneous categories. Kuhn puts the point as follows:

> *Use of a single word, 'phlogiston', together with compounds like 'phlogisticated air' derived from it, is one of the ways by which the original text communicated the beliefs of its author. Substituting unrelated or differently related expressions for those related, sometimes identical terms of the original must at least suppress those beliefs, leaving the text that results incoherent.[67]*

The problem is that our beliefs about which natural kinds there are change. When they do, the way we use words change. Arguably we should allow Kripke and Putnam some leeway and accept here that it may be stipulated during the ostensive moment that we mean the liquid, the color or whatever, that we are pointing to, as opposed to any of the other qualities of whatever we are pointing to. Notice that in such a case some of my intentions might start to matter again. Notice also that this might not require kinds, but it does require some sort of hierarchy of types, like a metaphysical theory of categories, which we already grasp to some extent in the ostensive moment or period. If we ever were to come to the conclusion that certain types or genera are broadly misconstrued, then again, the ostensive strategy would flounder. We will have more to say on this in section 3.3, dedicated entirely to the views of Kuhn.

3.2 Carnap on Explication and Language Planning
The next strategy to discuss is the **strategy of explication**, which is introduced under this name by Carnap. We will also discuss Carnap's approach to language as various systems of language. The locus

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[66] John Dupre, "Natural Kinds and Biological Taxa", *The Philosophical Review* 90, nr. 1 (198101): 66.
[67] Thomas S. Kuhn, *The Road since Structure : Philosophical Essays, 1970-1993 with an Autobiographical Interview* (Chicago, Ill. : University of Chicago Press, 2000), 41-42.

classicus is the first chapter of Carnap's *Logical Foundations of Probability*[68] This strategy begins with language commonly used, called the explicandum, and changes it, to an explicatum, to make it more precise or more suitable for scientific generalizations. This strategy has commonalities with the natural kind strategy and the stipulative strategy. It shares with the natural kind strategy the idea that scientists or other specialists get to have a large say in how to use language to discuss certain topics. Though whereas the externalists tend to argue that "meaning just ain't in the head" and that 'water' always referred to H2O, this strategy has it that a scientific understanding of a word will supplant over time, an older meaning or that scientific phrasings will simply be added to the existing language. Carnap uses the example of the word 'fish'. This word was once tied to a concept which included whales, now however, that concept has been replaced by a new concept which excludes whales on the grounds that they are mammals; they lack gills, they lack late common ancestry with fish, they have wombs and lungs and so forth. However, the strategy of explication shares with the stipulative strategy the idea that we are simply introducing a new concept, which arbitrarily defines a word in a way which need not altogether align with previous use. This means that if we were to tell a man living before the modern use of the word 'fish' that a whale is not a fish because it has lungs, he would not see the relevance of our argument and rightly so. On this view, his concept of 'fish' never had much to do with lungs, nor with our modern classification. It is nonetheless acceptable, Carnap argues, for biologists to have taken this prescientific word and change it meaning, somewhat drastically. The new meaning is scientifically very fruitful. It allows for better generalizations and fits better in our general theories.

A different example, which Carnap doesn't use, may be the notion of algorithm in Hilberts tenth problem. In 1900 Hilbert formulated a set of research questions for mathematicians, one of which was:

> *Given a diophantine equation with any number of unknown quantities and with rational integral numerical coefficients : To devise a process according to which it can be determined by a finite number of operations whether the equation is solvable in rational integers.*[69]

The notion of process in finite steps here is not very precise (and were there such a process it needn't have been). In the century that followed, it has come to be identified with the notion of algorithm in the sense developed by Turing, Church, Gödel and others. Certainly Hilbert had no notion of anything so specific when he spoke of a process in finite steps. Nonetheless, the proof that showed there was no algorithm to determine whether a rational polynomial had a root, was taken as an answer to this research question.

A different example is adding the notion of temperature. This concept has not replaced the more imprecise terminology of 'hot', 'cold', 'warmer', etc. It has however been added to it and helps us speak about it in a more precise manner if we want to. An important fact about temperature is that it is a different concept in kind from the older terminology about warmth. Carnap calls it a quantitative concept, one that is described numerically. Something being warm is not numerical. This means that the new concept could not be described with the same words as the old. To call something warm could never be as precise or informative as the range of descriptions at our disposal by describing temperature in real numbers. In this case explication seems not to have replaced a mode of speaking but to have enhanced one. Explication as Carnap introduces it in *The Logical Foundations of*

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[68] Rudolf Carnap, *Logical Foundations of Probability*, 2nd edition (Chicago, Ill.: The University of Chicago Press, 1962), 1-18.
[69] David Hilbert, "AMS :: Bulletin of the American Mathematical Society -- Volume 8, Number 10", American Mathematical Society, 1902.

Probability Carnap might seem like it only refers to changing the meaning of individual words. The 'fish'-example certainly suggests this, but the hot/temperature example suggests something else. In other texts Carnap clearly does not approach individual words but language in a more systematic sense. Explication appears to be on a spectrum of various ways to engineer language to suit our purposes. In *The Philosophy of Rudolf Carnap* Carnap writes:

> *Thus, in time, I came to recognize that our task is one of planning forms of languages. Planning means to envisage the general structure of a system and to make, at various different points in the system, a choice among various possibilities, theoretically an infinity of possibilities, in such a way that the various features fit together and the resulting total language system fulfills certain given desiderata.[70]*

Carnap speaks of language planning both in the context of formal systems as well as in the context of constructed natural languages such as Esperanto which he spoke. The spectrum of ways to engineer language includes things which aren't explication in the narrow sense suggested by the 'fish'-example. In some cases, which are difficult to discretely separate from cases of explication, it may be better to introduce subscripts or neologisms rather than to outright replace one meaning of a word by another.[71] Take for example this short excerpt from *Highlights of Changes from DSM-IV-TR to DSM-5:*

> *Autism spectrum disorder is a new DSM-5 name that reflects a scientific consensus that four previously separate disorders are actually a single condition with different levels of symptom severity in two core domains.[72]*

Here the new notion of 'Autism spectrum disorder' replaces not one previously existing word but four. Such a new way of categorizing reflects not just a change to a single categorization but a change in a larger system of categorizations, prompted, we might add, by substantive developments in the science of psychology.

Besides the systematic aspect of Carnap's approach some comments about the vagueness of the explicandum are in order.[73] We've already discussed aspects of this when discussing Strawson's commentary on Carnap in section 2.2. Since the explicatum is supposed to be more precise or more suitable for scientific generalization it will not be strictly equivalent to the explicandum. Carnap even makes it clear that the explicatum may differ quite a bit from the explicandum if the explicatum better fulfills other purposes. In the fish example, whoever unclear the explicandum 'fish' may have been, it certainly included whales. This means that whoever sets out to explicate has no clear task before him. It cannot be strictly decided whether the explicatum captures enough of the explicandum to referred to by the same word or whether it is useful, and for pragmatic reasons it may be decided to do so or not. The explicandum should first be clarified to the degree of precision that is attainable but it is important that that degree of precision may not be very high. As a result it might even be possible to explicate the same explicandum in different ways for different purposes.

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[70] Paul Arthur Schilpp, *The Philosophy of Rudolf Carnap*, The Library of Living Philosophers ; XI (La Salle, IL: Open Court, 1991), 68.

[71] Ibid, 937.

[72] "Highlights of Changes From DSM-IV to DSM-5", in *Diagnostic and Statistical Manual of Mental Disorders*, 0 vols., DSM Library (American Psychiatric Association, 2013).

[73] Rudolf Carnap, *Logical Foundations of Probability*, 2nd edition (Chicago, Ill.: The University of Chicago Press, 1962),1-18.

3.3 Shifting paradigms

I will now discuss the work of Thomas Kuhn on paradigm shifts and incommensurability. In *The Structure of Scientific Revolutions*[74], Kuhn famously, though somewhat inadvertently, introduced the notion of a paradigm, not just as an archetypal case of something, but as a structured scientific theory with paradigmatic applications and experiments, fundamental objects of study and a set of concepts of its own. Kuhn suggests the phrase 'disciplinary matrix' as an alternative here.[75] Whilst the paradigmatic illustrations or examples of theories is what has central importance to Kuhn in the chapter *the priority of the paradigm*[76], in later parts of the book, the word has gotten closer to the disciplinary matrix. This is the thing which scientists in a given field share. It has become common since, to refer to the whole of such a theory or disciplinary matrix as the 'paradigm'. We will follow this usage, and refer to paradigms in the original sense as exemplars or paradigmatic cases. Most interesting for our purposes is the role language plays in such paradigms and how it is informed by the other aspects. To see this, we will look in particular at Kuhns notion of incommensurability. He explains this idea by saying that proponents of rival theories are almost always talking, to some degree, at cross purposes.[77] This is because different paradigms differ not just in their views, but in all of their aspects:

> *Successive paradigms tell us different things about the population of the universe and about that population's behavior. They differ, that is, about such questions as the existence of subatomic particles, the materiality of light, and the conservation of heat or of energy. These are the substantive differences between successive paradigms, and they require no further illustration. But paradigms differ in more than substance, for they are directed not only to nature but also back upon the science that produced them. They are the source of the methods, problem-field, and standards of solution accepted by any mature scientific community at any given time. As a result, the reception of a new paradigm often necessitates a redefinition of the corresponding science. Some old problems may be relegated to another science or declared entirely "unscientific." Others that were previously non-existent or trivial may, with a new paradigm, become the very archetypes of significant scientific achievement. And as the problems change, so, often, does the standard that distinguishes a real scientific solution from a mere metaphysical speculation, word game, or mathematical play. The normal-scientific tradition that emerges from a scientific revolution is not only incompatible but often actually incommensurable with that which has gone before.*[78]

> *More is involved, however, than the incommensurability of standards. Since new paradigms are born from old ones, they ordinarily incorporate much of the vocabulary and apparatus, both conceptual and manipulative, that the traditional paradigm had previously employed. But they seldom employ these borrowed elements in quite the traditional way. Within the new paradigm, old terms, concepts, and experiments fall into new relationships one with the other. The inevitable result is what we must call, though the term is not quite right, a misunderstanding between the two competing schools.*[79]

> *Again, that is not to say that they [scientists from competing paradigms] can see anything they please. Both are looking at the world, and what they look at has not changed. But in*

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[74] Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL : The University of Chicago Press, 2012).
[75] Ibid, 181.
[76] Ibid, 43-51.
[77] Ibid, 112.
[78] Ibid, 103.
[79] Ibid, 149.

some areas they see different things, and they see them in different relations one to the other.[80]

To summarize, Kuhn lists the following as parts of a paradigm: views, fundamental notions, types of objects, methods, self-conception, valid questions, outstanding problems, paradigmatic examples, ways of seeing and the gestalt of the phenomena. Crucially, these things all relate and can all change together in one fell swoop: a revolution. Moments of revolution are contrasted with normal science, wherein problems are defined by a single paradigm, and are solved or shelved without altering the paradigm in any drastic sense. Hence the incommensurability Kuhn is speaking of is partially characterized by a lack of common standards to settle a dispute between two theories. This way of characterizing incommensurability has received much attention and has been interpreted by some as a form of relativism.[81] If paradigms define their own methodology and standards, we cannot appeal to that methodology to prove the truth and adequacy of the paradigm. If there are no paradigm-transcendent standards for accepting paradigms, we might conclude that all paradigms are only valid relative to their own standards. In the postscript to *The Structure of Scientific Revolutions* Kuhn complains that this is a misunderstanding of his views.[82] Certainly there are criteria of theory choice such as simplicity, empirical adequacy, fruitfulness and the like. But there are no algorithmic rules for how to apply these criteria and they may be differently applied by those working in different paradigms. Certainly data and perception can be interpreted differently but not in any way we like and not always without some friction.

I will mostly bypass this discussion and focus on another aspect of incommensurability: the difficulties that arise because adherents of different paradigms talk past each other. In *Commensurability, Communicability and Comparability*[83] Kuhn distinguishes interpretation from translation and proceeds to claim that claims from different paradigms are difficult if not impossible to translate in each other's language but that one may be able to interpret both at the same time. The reason is that translation only works when there are different names for the same concepts. Hence we can translate 'de kat zat op de mat' (Dutch) as 'the cat sat on the mat'. When translating everyday words between natural languages such difficulties occur, (the Dutch word 'gezellig' comes to mind or the subtle differences between 'science' and 'wetenschap') but are somewhat exceptional. Speakers of Dutch, English and presumably most languages have very similar concepts of what cats and mats and other everyday objects are. Different paradigms however tend to have the inverse problem: they use the same words but refer to concepts and schemes of concepts that are foreign to one another. Usually scientific theories endow an array of terminology with highly specific meanings that do not exist outside of the boundaries of this field of science. It is impossible to explain in non-mathematical terms what a Hilbert-space is, or an interpretation of ZFC. The reason is that there are no non-mathematical words for such concepts. Learning the concept and the terminology do not happen separately but jointly, together with the whole paradigm. Thus the claim of incommensurability should be rendered as the claim that different theories employ altogether different schemes of concepts that cannot be translated in this narrow sense of translation. I say

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[80] Ibid, 150.

[81] This interpretation has found little favor in more recent times, influenced by Kuhn's expressed disavowal of these readings. Contemporary reviewers however, did read *The Structure of Scientific Revolutions* in that way. See for example: Dudley Shapere, "The Structure of Scientific Revolutions," *Philosophical Review* 73, no. 3 (1964): 383–394.

[82] Kuhns response to the charge of relativism is found at Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL : The University of Chicago Press, 2012), 205-207.

[83] Thomas S. Kuhn, *The Road since Structure : Philosophical Essays, 1970-1993 with an Autobiographical Interview* (Chicago, Ill. : University of Chicago Press, 2000), 33-57.

schemes of concepts because Kuhn claims that some clusters of words are difficult to learn separately. Take for example the concepts of mass, force and Newton's second law. Lay physicists may have some vague intuitions about these concepts in isolation but to appreciate the meaning they take on in Newtonian physics, or the subtly different meanings they take on in later physical theories, we have to understand how these terms, and Newton's second law, relate. An important result is that there is a language which we can use to discuss the relative merits of the two paradigms but this language can only be formed as the union of the terminology of both paradigms. All this can be summarized thus: to understand certain concepts within a paradigm we have to understand the paradigm holistically, at least to some degree.

It is of particular importance here to grasp the role of the exemplar (the paradigm in the narrow sense) for understanding the theory and in part the terms therein. Kuhn believes, using some ideas from the late Wittgenstein that the use of words is not prescribed by strict, encompassing rules. Rather, what ties them together is the way students are thought, via the use of a few paradigm applications of a concept or theory. How precisely the related rules are to be formulated depends on particular applications, and can hopefully be worked out by the student once he gets the hang of it.[84] Kuhn gives various examples of applications of Newton's second law that diverge in ways, that are difficult to make explicit, but that do not seriously inhibit the understanding of Newton's second law.[85] The different application share enough resemblance to the paradigm cases that physicists know how to make use of the relevant concepts. Hence, the meaning of words is not just informed by explicit definitions but also by paradigmatic cases and a somewhat fuzzy relation of resemblance to those cases.

Now, there is a difference between the difficulties of translation between competing paradigms and between altogether different fields. It seems unsatisfactory to say that Newton and those before him had altogether different concepts tied to the word 'falling' and that those concepts have as little in common as birds and fruits referred to as 'kiwi' have with one another. As one rose to prominence the other lost relevance. These paradigms have something in common that makes them compete, despite the obvious differences between the two conceptions of gravity. Great overlap in the phenomena described seems the most obvious candidate.

The upshot of all this for our purposes is that semantic arguments and substantive arguments can be linked once there is an argument between two competing paradigms or theories. In such cases, the question of which theory is correct (or, more modestly, better) and which phrases are to mean what are difficult to separate. It is perhaps possible to separate the substantive from the semantic part of the discussion, but doing so requires rather difficult work that is in practice hardly ever carried out. Even if it is carried out, its effects only reach a select few specialists. Reichenbach, as was mentioned earlier, has formulated the theory of general relativity whilst holding on to Euclidean spacetime but the resulting theory is so bizarre and unpleasant to work with for physicists that Reichenbach concluded that it was simply better to ignore his formulation. The more practical solution is to consider the two theories or paradigms wholesale and determine which is better as best we can. This comparison can only properly be done by those who speak the languages of both theories, not because they can translate but because they understand the divergent sets of concepts involved in both.

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[84] Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL : The University of Chicago Press, 2012), 47.
[85] Ibid, 188-189.

There presently exists a range of views in developmental psychology under the header of theory theories of concepts.[86] These theory theories, sometimes explicitly influenced by Kuhn[87], seek to explain some or all of the having of concepts in terms of implicit or explicit theorizing about certain things. Such concepts, on such a view, are constituted by broader theoretical ideas about how to categorize certain things and categories. Such work has for example focused on implicit conceptions children have about life and the relation between humans and other animals.[88] These conceptions, the idea is, are transformed when children learn the theories that adults hold, where typically the distinction between humans and the other animals is less pronounced.[89] If such theories are true, then what Kuhn has to tell us might be broadly informative for a range of concepts we hold, not just those in highly specific domains of science.

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[86] "Concepts, Theory-Theory of | Internet Encyclopedia of Philosophy," accessed June 21, 2019, https://www.iep.utm.edu/th-th-co/.
[87] Ibid.
[88] Ibid.
[89] Ibid.

4. Language and the Good

In this chapter we will look at the relation between language, action and politics. Where in chapter three we looked at the world as it is, or as we believe it is, to guide the use of our words, here the focus will be on how the world is supposed to be. As we discussed in the section on ordinary language there is a long running divergence between those philosophers who approach language with the aim of improving it[90] (Leibniz, Frege, Russell, Carnap) and those who approach it descriptively (Wittgenstein, Austin, Kripke, Putnam). While some like Carnap[91] and Austin[92] have realized these two approaches need not be in tension, their proponents often are[93]. In recent times the more activist or constructionist approach has regained favor. This time however, not from scientifically minded people like Frege and Carnap but from politically inclined thinkers like Ludlow, Haslanger, and Cappelen. This has led to a rise in popularity of what is called 'conceptual engineering'. There are several other authors currently engaged in work in this area. For an overview on this topic I recommend part V of Cappelen's *Fixing Language*[94]. In this chapter we will first look slightly further back, to the work of Ludwig Wittgenstein and Sally Haslanger. We have already discussed Haslanger and will discuss

In section one we will start by discussing the late Wittgenstein's language games and his related notion of a form of life. These language games are linguistic systems, in some ways similar to Carnap's systems or Kuhn's paradigms, but Wittgenstein has a particular focus on the relation of language to our action and life. How can we use it language becomes a more important question than how it describes the world. Hence Wittgenstein emphasizes that language is not just used for description but for a range of speech acts, such as promising, asking, making puns, etc. Wittgenstein however, has little to say on how we might want to change the language we speak. When he speaks of that, it is mostly to criticize his earlier work for striving for an unrealistically regimented language. To get this chapter back towards the topic of adjusting language we will, in section two, discuss the work of Sally Haslanger. She has argued for something called ameliorative analysis: a type of analysis where we discuss not how a word is de facto understood or used but what a word ought to mean. Secondly, we will use Haslanger's work to make some useful distinctions. I have discussed in section 2.2 why I am skeptical of conceptual analysis. I have there argued that its questions are formulated unclearly, and that the answer may not be that interesting. Haslanger has similar criticisms that are worth discussing separately. She fleshes out how analysis may focus on various things which all have some claim to being the meaning of a word. In section three we will look at the work of Cappelen as an example of the state of the art in conceptual engineering. We will use his work in large part to discuss what can be expected of a view of conceptual engineering.

4.1 Language games

As we have seen in the previous chapters many different authors caution against looking at individual words. Carnap speaks of language planning and, we have argued, is misunderstood when we see explication as a mere change in meaning to an individual word. Reichenbach notices that when we change the meaning of individual words there are 'entailed decisions'. Kuhn studies the body of a

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[90] Carnap notes this divergence too: Paul Arthur Schilpp, *The Philosophy of Rudolf Carnap*, The Library of Living Philosophers ; XI (La Salle, IL: Open Court, 1991), 68.

[91] Paul Arthur Schilpp, *The Philosophy of Rudolf Carnap*, The Library of Living Philosophers ; XI (La Salle, IL: Open Court, 1991), 940.

[92] See the quote at page 18 above.

[93] Paul Arthur Schilpp, *The Philosophy of Rudolf Carnap*, The Library of Living Philosophers ; XI (La Salle, IL: Open Court, 1991), 503-518.

[94] Herman Cappelen, *Fixing Language : An Essay on Conceptual Engineering* (Oxford : Oxford University Press, 2018).

theory, along with paradigm cases, rules, views and its own vernacular and definitions. The later Wittgenstein has a similar notion of looking at the a larger system of language. In his *Philosophical Investigations*[95] he speaks of language-games. What is most important to us here is not the relation of language games to the world, that much we have discussed, but the relation of language games to human action and values. The specific analogy with games is cashed out in several ways that are unique to Wittgenstein and that will help us see the relation of systems of language and action.

The first analogy is to compare the use of individual words to pieces in a game. Wittgenstein criticizes Augustine who thinks one learns words by connecting them with the things they refer to. Wittgenstein says that this may be how we learn the names of that which we already understand, as when we learn a foreign language, but it cannot be how we learn the use of the word.[96] This will be familiar from our section on Kuhn, who distinguished interpretation from translation. When we say to somebody about a piece in chess: "this is the king", we have given the piece a name, but to explain what the piece is, we have to also explain the rules of the piece. Somebody who merely knows that this piece of wood is called the kind but not how it moves, when it is in check, etc, can hardly be said to know what the king is. This in turn requires some understanding of the rules of the game in general. If you do not understand what the squares are or when they are next to one another, you cannot understand the rules for moving the king. The upshot for language-games in general is that the individual words take their meaning in part from their role in the game.

The second analogy is that of rules and how loose they might be. Playing a game means adhering to its rules, but not always, and only within some margin of error. Children who make illegal moves might nonetheless be playing chess. Chess may be played with various time controls and still be chess. But even throwing around a ball with few rules or rules that are made up and changed as the game moves along can count as playing a game.[97] What is more important to Wittgenstein is the playing of a game. This playing need not be altogether unguided, but the rules that guide us are almost never entirely precise. They merely have the precision that is required, not some hypothetical entirely precise form. Not only that but propositional knowledge of the rules is hardly required to play a game. Many people who play chess do not fully understand the rules. They may lack knowledge of some of the drawing conditions, for example. More generally, they may have learned the game by watching somebody else play. Hence to know a game is according to Wittgenstein more like "knowing ones way about" or being able to play it than knowing the rules.[98] Hence, Wittgenstein compares rules to signposts[99]. A signpost by itself needs to be interpreted, but as long as it can tell us how to go on, it functions.

Wittgenstein launches another attack on the rule of rules in sections 561-570 where he speaks of the point of a game.[100] This is the third analogy which we will discuss.

> *So I am inclined to distinguish between essential and inessential rules in a game too. The game, one would like to say, has not only rules but also a **point**.*[101]

[95] Ludwig Wittgenstein e.a., *Philosophical Investigations*, 4rd ed., repr., A Blackwell Paperback (Oxford: Blackwell, 2009). I will be referring to the *Philosophical Investigations* by section rather than by page number.
[96] Ibid 3, 31.
[97] Ibid 83.
[98] Ibid 31, 147, 148, 200. This point relates to perhaps the most central thesis of the work, that believing, knowing, are not experiences or acts of thinking. Related points are made throughout the *Philosophical Investigations*.
[99] Ibid, 85.
[100] Ibid.
[101] Ibid 564.

Examples of inessential rules may be the time controls in chess, or some lottery to determine who moves first. The idea seems to be that the point or character of the game distinguishes between the essential rules, that further the point and the inessential rules that seem superfluous to the point. Wittgenstein seems hesitant to label rules inessential. Many rules may have some purpose after all. Nevertheless, the hesitance is articulated using the charitable idea that there must be some point to a strange rule. Some way in which it fits the character of the game. The character of the game can be understood broadly. Take the rule which says you must play any piece you touch in chess, which prevents players from annoyingly moving their hand across the board.

The analogy to language is made thus:

> *Language is an instrument. Its concepts are instruments. Now perhaps one thinks that it can make no **great** difference **which** concepts we employ. As, after all, it is possible to do physics in feet and inches as well as in metres and centimetres; the difference is merely one of convenience. But even this is not true if, for instance, calculations in some system of measurement demand more time and trouble than we can afford.[102]*

There are parts of the language which are inessential or in any case less essential, but usually even there choices are made to further some character or point. Earlier Wittgenstein has argued that a game can lose its point if certain presuppositions are not met. For example, if the weights of things arbitrarily changed, we could not use scales.[103]

The third analogy to games is to compare the making of statements, the asking of questions and the performing of speech acts generally with moves in the game[104]. The idea of movement or activity is crucial to the game, and distinguishes it from many formal languages which seem intended not to make moves in but to prove things about. This will also prove to be important for questions of how to argue semantics. A language-game must remain playable. A move which could be made in theory may not actually be made, because it would be too impractical. Examples of moves made in language games are the asking of questions, or the giving of orders. The idea of the point or character of the language-game can be made more clear when we understand the way a language-game is supposed to relate to actual practices and what Wittgenstein calls forms of life. Wittgenstein explains what a form of life is mostly by relying on the natural associations of that phrase and by giving examples. From his remarks in section 23[105] however it is clear that a form of life is a kind of activity which is integrated with the language game. Wittgenstein gives a range of examples of language games like giving orders, speculating, joking, cursing, greeting, describing, etc. Wittgenstein's explanation of a language game is thus as follows:

> *I shall also call the whole, consisting of language and the activities into which it is woven, a "language-game".*

We have so far discussed various ways in which language can be embedded into a system of beliefs or into an external reality. Wittgenstein adds to this a focus on our own activity with the language. This makes it clearer what the point or character of a language game might be. Words and language might not obviously seem to have a point, but activities, clearly do. When one asks a question, the point is to get an answer. So when analyzing language, we not only have to be careful to define in a

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[102] Ibid 569.
[103] Ibid 142, PPF31.
[104] Ibid, 49.
[105] Ibid 19, 23.

way that is conducive to describing reality accurately, but also to supporting and enabling the activity that we wish to support.

Here we might seem to be diverging from Wittgenstein. Wittgenstein believes that philosophy must not interfere with the use of language.[106] Since we have been discussing how to argue semantics, mostly citing philosophers, our use of philosophy would seem to contravene Wittgenstein's wishes here. Wittgenstein seems particularly worried that philosophy aims at impossible levels of exactitude and clarity. We need friction in our use of language, he cryptically says, not perfect smoothness, or otherwise we cannot walk or act with it.[107] Seeking for perfect clarity seems like a fairly narrow use of the word 'philosophy'. Perhaps this was the aim of Frege or the early Wittgenstein, but it is not what I aim at in this essay. If that makes this essay not philosophy in Wittgenstein's specific sense, then so be it. What we are aiming at for now is the kind of reform that Wittgenstein speaks of in section 132[108]: a reform for particular practical purposes. I do not have strong views on striving for crystalline perfection and I do not need it here.

4.2 Ameliorative analysis

Haslanger uses philosophy of language in large part to clarify some of her work in feminist philosophy and the philosophy of race. As an example: some people, called error theorists, believe that that the concept of race is premised on the idea of biological categories which do not in fact apply to humans and is therefore a bad concept, which should not be used at all. Constructionists like Haslanger on the other hand believes that we can distinguish people of different races, not as a biological but as a social category. A social category that should not exist to be sure, but one that does exist nonetheless and that should be discussed in clear terms. People are easily recognized, by themselves and others, to be black, white, Asian, native American, etc. Being recognized as such has all manner of very real social consequences; on the job market for example.

This is another straightforward example of a semantic discussion. Haslanger however, argues that the difference isn't simply that error theorists and constructionists want to use words like 'race' and 'white' differently. She also argues that this is because error theorists and constructionists are approaching the analysis of these words differently. She distinguishes between conceptual, descriptive and ameliorative analyses. Conceptual analysis studies what we have in mind when we say a word. Here we must be careful, both with what 'we' means and what 'having in mind' means. If the word is analyzed by bouncing potential definitions against the analysts intuitive grasp of the word then it would seem that what we find out is how the analyst is comfortable paraphrasing their use of this word. The descriptive analysis proceeds by looking at the nearest kind that the word seems to refer to. An important addition that Haslanger makes here, is that kinds may not just be natural but also social. Thus, she believes that races, for example, are social kinds. (in my terminology, they would probably be social types) Other examples of social kinds are gender, dorks[109], leaders, etc. She believes that the social kind is closer to our unreflective use of words like 'white' and 'black' than the natural kinds. This may even be the case for people who believe in such natural kinds. One way to study the social kind may be to study the operative concept as opposed to the manifest concept. To get a handle on this notion recall the example from Haslanger which I spoke of in section 1.8 where tardiness (being late for school) was measured and punished differently from the way administrators believed it was and had defined it into the official rules. Here the operative concept which may be a

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[106] Ibid 116-133.
[107] Ibid, 107.
[108] Ibid.
[109] Sally Anne Haslanger, *Resisting reality : social construction and social critique* (New York : Oxford University Press, 2012), 406-429.

social kind is visibly different from the manifest concept which aligns closer to the way people might paraphrase their use of the word. A difficult question here is that of the relation between our use of words and the social kinds they refer to. The fact that we have words that generally distinguish people into black, white, Asian, Native American etc. helps constitute the social reality they refer to. It might however be misleading to say that we should therefore simply not use those words. This might prevent us from discussing the social kinds as they exist. A third form of analysis Haslanger distinguishes is ameliorative analysis. This is not analysis in the sense that we do not discuss something that was already there. Instead we discuss how we believe we should be using a certain word. Besides the operative and manifest use of the word there may be a target use of the word. This the way the word would ideally be used. The target use may be not to use the word but it might also coincide with the operative use or the manifest use or both. In the last case there is no problem, but in the other cases changes will have to be made to our operative or manifest use of the word, or both. This need not be easy, especially if we want this change to take place society wide in order to impact or remove the social kind.

We have discussed the homonymic strategy above and it is and important insight of Haslanger that something akin to this strategy may also be applied to words like 'meaning' and 'analysis' as well. Earlier we saw that Reichenbach had a similar insight. This means that various strategies of analysis may peacefully coexist. The question is not which of these forms of analysis is properly analysis or which is the best one, but which is appropriate for what ends. It is important is not to exclude one form of analysis altogether. The form which Haslanger thinks is often excluded, is the ameliorative kind:

> *Ultimately I would hope for a proliferation of epistemic notions. Again, I'm not intending to close of inquiry but to open it up.*
>
> *However, the normative question, I think, is not in the end optional: a discussion of truth conditions for knowledge claims that does not critically reflect on the broader purpose for our use of the concept, and that does not take up the issue of epistemic value is impoverished.[110]*

Here I think Haslanger is being rather mild. We must be wary that a conservative approach to analyzing knowledge, one that studies how the word is used or how we would like to paraphrase it, without reflection on whether that is desirable, risks formalizing and perpetuating the use of a word that is used in ways which are systematically misleading or harmful. Feminists may complain that our use of 'knowledge' is sexist, sceptics or psychologists who study biases[111] argue that it is woefully optimistic. There is no point in arguing here that feminists, bias psychologists or sceptics are proposing to use 'knowledge' in a deviant sense. For one, the use of the words seems to fall apart into a manifest and operative concept that need not align. But even if they do, using the word in a way differently from how it was used before is the point.

4.3 Conceptual Engineering

There has recently been a proliferation of views that may loosely be described as calling for 'conceptual engineering'. As an example we will here discuss some interesting elements of the work of Herman Cappelen.

Cappelen has recently written a book called *Fixing Language: An Essay on Conceptual Engineering* generally calling for focused attention on changes made, deliberately and accidentally, to language.

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[110] Sally Anne Haslanger, *Resisting reality : social construction and social critique* (New York : Oxford University Press, 2012), 341-364.

[111] See for example The MIT Press, "The Fragmentation of Reason," The MIT Press, accessed March 23, 2019.

Here Cappelen develops some of his own views, and sets out some ideas for how to construct a theory of conceptual engineering. Cappelen seems to envision conceptual engineering almost entirely in terms of changing the meaning of individual words. The main constraint he sets for himself is to do so without reference to concepts. He then takes it that we need a meta-semantic theory to tell us what meaning is and how it might change. His own theory is an underdetermined form of externalism. There is something about the culture and the world we live in that makes words mean what they do. What this is, is not known, and may even change as a result of a shift in the meaning of the word 'meaning'. In order to change the meaning of words we must therefore change the culture or the world. This is hard, and as a result Cappelen is skeptical about the actual degree of control we will be likely to have over the meaning of words. Lets take a clear example. Cappelen talks about the United States supreme court decision to consider large organizations as persons in a certain sense. Cappelen argues that this does not change the meaning of the word 'person' but rather forces lower judges to adhere to an incorrect use of this word in their practice. If this is carried out consistently and adopted by the general public we may eventually get to a place where the word 'person' has such a meaning, but for now, it hasn't.

Cappelen's main worry is with an argument in the style of Strawson that changing the meaning of words merely shifts the discussion to something else, leaving whatever was discussed previously unaddressed. In order to meet this worry, Cappelen introduces the notion of a topic. This is what a word is about, but in a more course grained sense than its meaning. The idea is that so long as the meaning of a word can shift within its topic, we are still addressing the same things. So, when 'rape' was reinterpreted to include forced sex within a marriage, its meaning changed, but its topic remained the same. The idea of a topic as being something more course grained than exactly what a word means, but not so course grained as to allow any change in meaning has a certain intuitive appeal. Whenever we ask a certain question, especially when we ask it clumsily on a topic were whoever answers knows much more about, the answer may include that some presuppositions we make are wrong, or that we would have done better to phrase the question differently in certain ways. This may or may not be acceptable to us, and we may or may not feel as though our question was addressed, depending on whether the answer stays on topic, coarsely understood. To go directly back to Cappelen's example, 'marriage' or 'rape' before and after marriage between gay people and rape within marriage were considered possible, have different meanings, but these meanings have a close affinity, which may be explained by saying they are on the same topic.

I have several worries about the views of Cappelen. For one, his language when he defends the more constructive, revisionist attitude towards language is consistently framed in terms of 'fixing', 'ameliorating', addressing 'defects', etc. I do not know whether Cappelen holds this view explicitly but his language suggests that he believes the natural way for language to be is to be functional and that we can fix it once it is defective. If we change the vocabulary to 'improving', addressing 'misleading' or 'undesirable' uses of language, or something similar we see a picture that is a bit more modest about the current state of language. As we discussed in the sections on natural kinds and paradigms, our use of categorizations is in many cases systematically confused and has been subject to major revisions. Sometimes the task is not just to ameliorate defects but to construct language that can serve certain purposes at all.

A second worry: as we have seen, Carnap, Wittgenstein, Kuhn and Reichenbach all seem to share the idea to approach language at the level of a system of words, views, actions and notions. When we want to make changes, they should not be to individual words but to these broader systems. This might mean introducing neologisms, it might mean removing the use of certain words and it might mean having a word change its meaning. It might also mean changing the systematicity of an array of

categorizations. All these options can and should to be considered alongside each other. Only focusing on changing the meaning of words seems too narrow. Once we look at the level of the system, the worry about changing the topic will also become less salient. The topic may be understood in terms of the broader system. Changing individual words may indeed sometimes just change the topic, but that may simply be addressed in such cases by adding words. A third worry is that while I agree that a meta-semantics is important for a theory of conceptual engineering, I believe it is ill-advised to conceive of a meta-semantics as a theory of meaning. More on this in section 5.3.

5. Taking Stock

In the preceding chapters we have discussed a great number of authors and several strategies for resolving, or thinking about, semantic disputes. In this chapter we will be formulating some general upshots. In chapter one we discussed some approaches to semantic arguments based the idea that semantic arguments are often pointless. The idea was that we had a generally dynamic lexicon: words don't have very precise meanings and in specific instances we can modulate their meanings and make them more precise for specific purposes. We discussed that in some semantic discussions it may be best to either eliminate altogether the disputed terms, to just stipulate one meaning, or to accept that a word may have multiple meanings. Why shouldn't we always do this? In what situations is this more or less appropriate. To recap, we have discussed four main reasons: (1) we desire to make some part of the lexicon more static through institutional standardized definitions. (see sections 2.1 and 4.2) (2) A range of concepts must be discussed together. (see sections 1.4, 2.1, 3.2, 3.3 and 4.1) (3) Our semantic discussion is tied up with a discussion of how to describe the world. (see chapter 2) (4) Our semantic discussion is tied up with a moral or practical discussion. (see chapter 4) We've discussed that a bad defense is to try to find the 'real' or already common meaning of a word, however precisely one wants to understand that. (see sections 2.2 and 3.1) For these reasons we were not convinced of externalist theories of meaning, nor of linguistic conservatism, as seen for example in protracted conceptual analysis. It may be insightful to consider the nearest natural kind or the common use of certain words, but with Austin we concluded that this is not the last word, but rather the first.

In the introduction I said that besides those subject which unified the chapters, there were three more axes along which certain views would be discussed: the system-axis, the scale-axis and the constructionist-descriptivist-axis. We will discuss the system-axis coherently in section 5.2. We have seen that Reichenbach, Carnap, Kuhn and Wittgenstein all had some idea of system wide semantic arguments but the form this took was somewhat different in all of them. For this reason we will discuss the system thought, or rather, the divergent system thoughts in section 5.2. We will distinguish two ways of understanding the system thought. Once we have distinguished these two ways, we will also be able to delineate an important category of semantic arguments that are less pointless and less removed from substantive discussion than we suggested in chapter one. The constructionist-descriptivist-axis will be addressed in section 5.3. There we will address the notion of meaning. We have seen that some earlier authors such as Reichenbach, Carnap and Haslanger were open to more compatibilist approaches between those with different ideas of what 'meaning' or 'clarification' means. We will argue that 'meaning' is itself an underdetermined word and that discussions about the meaning of any word or group of words can for that reason be approached in various ways. It may be addressed both constructively, as well as descriptively and either of these approaches may be further split out into questions of what kind of aspect of language use we would like to describe or construct. The scale-axis will be addressed very briefly in section 5.1. The idea of scale will not play much of an important role in chapter six. It should however be noted that the practicalities of changing the meaning of certain words may extend well beyond stipulating a new meaning and this may constrain what options we have when arguing semantics.

5.1 Scale and practicality

In sections 2.1 and 4.2 we saw some considerations of the scale and practicalities of changing the use of language. We noted that for some reasons we want to deliberately eliminate the dynamism from parts of the lexicon. It is best if people generally use the same units of measurement, defined in the same way. If I order curtains of a certain length, after measuring the size of my window, I want the centimeters on my measuring tape to be the same centimeters that are used to make the curtain.

Another example: it is best for legal certainty and to avoid discrimination that legal terminology is applied consistently. For these reasons there are institutions to ensure that these parts of our lexicon are more static. Such institutions cannot simply define terms willy-nilly or accept homonymy. The precise way how something is defined will be how it is used and if this is in some way harmful, misleading or inconvenient than we are either stuck with that, or the institution will lose its authority. The desire to reduce lexical dynamism brings in issues of scale and measurement. Both these issues relate to the practical difficulties in getting people to actually adopt certain definitions consistently. It is easier to get small groups of people to change their use of language some of the time than large groups all of the time. It is also important, following Haslanger to change both the operative concept, the methods of deciding what falls under a certain word, and what people understand by a word in tandem. Hence, metrologists, methodologists, lawmakers and the authors of the DSM face a range of difficulties relating to the fact that they are adopted standardized definitions, rather than provisional ones. Such issues of scale however, might also arise with words that aren't as standardized. If we want to change how the entirety of society uses 'knowledge' or 'woman', this will require considerably more work than to stipulate a new definition somewhere.

5.2 The system thought

We have discussed several times that individual words should not be the locus of our concern. Rather we should focus on larger systems of language. We have seen this in terms of Reichenbach's "entailed decisions". Carnap too discussed formalized languages, rather than focusing merely on the meaning of individual words. He discusses this under the name of language planning. In our sections on Kuhn and Wittgenstein too, we focused on the systematic aspect of some semantic arguments. Reichenbach argued that an individual definitions had ramifications for what other things we might say. We will now reflect on this systematically. First we will discuss two different forms of systematicity. A form found in Reichenbach where equivalent ideas are expressed in different systems of words and a form found in Kuhn where different concepts are used to discuss the same topic.

Recall that Reichenbach argued that many matters that had been thought to be matters of fact were actually matters of definition, the question of whether space was Euclidean was an example. In such cases however, it was seen that while individually, Euclidean space could be defended come what may as a definition, such a definition had further ramifications. Hence, to incorporate the insights of general relativity into a view that held on to Euclidean space some other conclusions, such as the discontinuity of causality, were unavoidable. Reichenbach's discussion on entailed decisions helps us see an important point: while in the discussion between neo-Kantians and adherents of general relativity, there was some semantic argument somewhere, it was hard to tell where exactly. In fact Reichenbach's insight was not just that the meaning of a word was a matter of choice but that the location of a semantic argument itself was a matter of choice. We could take it as a matter of choice that causality is continuous or not, and have the properties of space follow or the other way around. The fact that these definitions are related is itself not up for choice, but follows from antecedent scientific investigations. This indicates that the semantic argument is not here carried out on the level of whether we should stipulate that space is either Euclidean or a Minkowski space, but on the level of which system of describing more or less equivalent ideas is best. Reichenbach seems to have favored the system with continuous causality and without universal forces. While both systems were empirically equivalent, they predicted the same observations under any and all circumstances, one was vastly more elegant, less unwieldy, and less bizarre. To see why this matters, recall Chalmers' criterion: he proposed to eliminate words suspected of being the locus of a verbal dispute to see if the dispute could then be restated. The difficulty here is that the semantic dispute may not be easily localized to one single word or set of words. It might be difficult to eliminate too many words

without excluding whole subjects from discussion. This might be a particular form of Chalmers bedrock concepts. There might be clusters of concepts that are together bedrock and that are together the subject of a semantic dispute. We should be careful with the Reichenbach example. The conclusion of some discussion is in part determined by the substance under discussion, but the substance underdetermines how we should describe something exactly. Where it does, further questions to be settled could be taken to be semantic. We should here be somewhat careful about how we characterize this nebulous substance exactly. It is generally agreed that two descriptions are equivalent if they are both true under exactly the same conditions. Some people have argued that this criterion should be understood more precisely in terms of somebody being able to tell the difference. Reichenbach certainly entertains this thought[112] and it was famously held by several of the logical positivists[113]. It seems clear however that there is a distinction between a discussion about what we cannot know and a discussion that is purely verbal. Just because the evidence underdetermines our conclusions, doesn't mean that the truth of what we say must also be underdetermined. We cannot presently know whether intelligent extraterrestrial life lives within a 500 lightyear radius from us and nobody on earth now alive might ever find out, but the question is not on that account semantic. It may be pointless to discuss what we cannot know but that does not mean that we should say whatever seems convenient about such matters. It would make no sense to simply stipulate that there is extraterrestrial life near us. In general, the positivistic line appears to assimilate truth conditions, comprehensibility, non-contradiction and knowability all under the header of a 'meaning criterion' when those things can clearly be separated. Hence, we could try to improve by saying that a discussion is semantic if it couldn't be settled even under the counterfactual presupposition of omniscience.[114] This however, merely closes a strange loophole in a previous definition. It might be better to have a positive way to characterize when disputes are semantic or to be precise, when we agree modulo different uses of words. However, I have no meaning criterion to offer. We can take a different example where the semantic component of the discussion is unambiguously semantic. For example, a meter is 100 centimeters by definition. It is however, a matter of choice not just whether we define a meter as the length of some laser in Paris or as one forty-millionth the circumference of the earth, but it is also a semantic matter whether we take the meter or the centimeter as primary. We may even disregard the decimal counting and use a different system of measurements. However we do it, we are still constrained by some features of reality. Any system of measurements should tell us that Kareem Abdul-Jabbar[115] is taller than I am.

The second way a discussion may be semantic is because not just the terminology but the whole conceptual apparatus is under dispute. We saw this in Kuhns discussion on incommensurability. In the first type of semantic disputes, the dispute is semantic because people discuss the same concepts in different terms. In this second type the dispute is semantic because people discuss the same thing using different concepts. It is not simply the case that the disputants could easily rephrase their point in different language because some of the language they use is tied to highly specific concepts that are exclusive to certain specific terminology, theories or views. This type of semantic dispute is markedly different from our first type, people are talking past each other either because one or both

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[112] Hans. Reichenbach, *Experience and Prediction : An Analysis of the Foundations and the Structure of Knowledge* (Chicago [etc.] : University of Chicago Press, 1970), section 8.
[113] For a discussion of the views that the various positivist held relating to this idea see section 4.1 of Richard Creath, "Logical Empiricism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, Fall 2017 (Metaphysics Research Lab, Stanford University, 2017), https://plato.stanford.edu/archives/fall2017/entries/logical-empiricism/.
[114] Again, Reichenbach also considers this option. Hans. Reichenbach, *Experience and Prediction : An Analysis of the Foundations and the Structure of Knowledge* (Chicago [etc.] : University of Chicago Press, 1970), 38, 39.
[115] A 2.18 meter basketball player.

lacks the education to understand what the other says at all, however exactly it is phrased, or because there is no way to phrase the points of one of them in a way the other will find suitable. There must of course be some points of contacts for them to be disagreeing in the first place, but there will be a misfit between their characterizations about exactly what they are even disagreeing about. Kuhn gives the example of Phlogiston[116]. He argues that words like 'phlogiston', 'element' and 'principle' cannot be translated into any part of the terminology of modern chemistry without fundamentally altering its meaning and rendering texts in which the word appears unintelligible. A modern chemist might understand it, it must be stressed, but not through translation into his own vernacular. In this case the discussion may not just be semantically but also conceptually confused. The discussion is not just about which concepts should be designated by particular words but which concepts apply best to a certain topic. From within either conceptualization of the topic, the claims of the rival theory might seem outright contradictory. Kuhn relates that according to some pre-Copernican thinkers, the Earth was by definition immovable.[117] To see the points of contact, there should be something like a subject of disagreement. I will adopt Capellen's talk of topics for this locus of disagreement. The topic may be indicated indexically, clearly the phlogiston theory and the oxygen theory disagree about how to explain fire, the flames that we've all seen, whatever fire is exactly. The question then becomes which concepts fit the indicated topic better. Some categorizations prove more fruitful or perspicuous than others. Some may only fit the subject awkwardly. Some concepts, we may conclude, turn out to altogether lack a referent. These semantic discussions too often concern larger bodies of definitions and concepts all at once. One reason is that it is usually only the combination of several concepts and claims about them that allow us to grapple with a given phenomenon. This form of semantic argument too is systematic in nature. The reason that concepts that are meant to capture aspects of the same phenomena can be different is that there is a group of intertwined concepts, and there is difference between the ways in which they are intertwined. The relations between 'phlogiston', 'dephlogistication', 'element', 'principle', etc. are different from those between 'oxygen', 'molecule', 'oxidation', etc.

It is important to see that even if we set aside the system thought for a brief moment, this discussion might still help delimit an important category of semantic arguments that is not altogether pointless. We can distinguish verbal semantic discussions where what is at stake is merely which word we attach to which concept, from conceptual semantic discussions where the use of certain concepts or schemes of concepts is called into question. We have, since chapter one, raised the question whether semantic arguments are pointless, trivial or altogether to be avoided. It seems clear to me that in the case of verbal semantic discussions the suspicion that you are wasting your time and that the discussion is best resolved quickly by means of the strategies discussed in chapter one, is much more warranted than in the case of conceptual semantic discussions.

In chapter four, especially section 4.1, I have sought to draw attention to the fact that a system of language may not only attempt to capture some feature of reality, but may also relate to our actions and values. The most obvious examples of this is found in thick concepts, in concepts that are best understood in terms of human action and in 'moves in a language game'. Thick concepts are those concepts that express both an assessment of value and a factual component, such as those expressed by 'murder' or 'courageous'. Examples of concepts that must be understood in terms of human action are obviously those verbs which refer to human actions directly, but also a variety of

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[116] Thomas S. Kuhn, *The Road since Structure : Philosophical Essays, 1970-1993 with an Autobiographical Interview* (Chicago, Ill. : University of Chicago Press, 2000), 40-43.
[117] Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL : The University of Chicago Press, 2012), 149.

other words. It is crucial to understanding what a hammer is that one has a notion of hammering. Moves in a language game, by some authors called speech acts, are those actions which we can only undertake by using language. Asking a question, or pronouncing two people married, for example. Now the relation between action and language goes both ways. Not only is language understood by means of action but action is often understood and enabled through language. Speech acts are the obvious example but not nearly the only one. When you do actions you have to be aware that you are doing them and when you do a specific action you have to be aware that you are doing the specific thing that you are doing. You may of course turn over in your sleep but this does not count as an action and you are not held responsible for it. Similarly, moving a chess piece to put in the center of its square, or to put in the box, is not the same as making a move in a game of chess. To be aware that you are doing something specific, you have to understand the specific thing that you are doing. Again, you may inadvertently bring certain things about, but this is not the same as deciding to bring them about. Now strictly speaking one needn't always have language to have the concept required for an action. Animals and very young children can perform intentional actions without language, and many of the actions we undertake are done without any verbal thoughts about it. We can however, easily come up with a range of actions that are almost exclusively understood, at least learned, through language. Moves in chess, for example. Specialized procedures like reducing the complexity of the algorithm require that one knows what the complexity of an algorithm is. Some actions, like writing down proofs, are perhaps partially speech acts that require a broad and explicit understanding of what you are doing as well. With this in mind, any system of concepts might not just include views on how the world, or part of it, behaves, but also incorporates certain values and enables certain actions. With that in mind, it might be possible to argue semantics, not just with an eye to the true, but also with an eye to the good. Feminist authors seem to aim, not just at a better understanding of gender, but an understanding of it that changes how people treat one another, based on the categorizations we have. Some of our current terminology 'slut', 'emasculate' in its more metaphorical uses, 'man up' and the like enable actions and imply values with which feminists take issue. Alternatively a lot of the language we have surrounding the issue of health, has implications for what we consider good and bad for the human body and mind, what we consider appropriate for a doctor to do, etc. To consider something a 'disease', is not just to note a category but to set it up as something to be counteracted. To consider a certain action as 'surgery', it should not just be contextualized within views about the human body, but also with views about what counts as acceptable medical procedure. Cutting somebody open or performing similarly invasive procedures is not seen as surgery in all but quite specific cases, but rather as an atrocity.

5.3 Semantics without Meaning

In section 4.3 we discussed the work of Cappelen. We noted that according to him, a theory of conceptual engineering should be based on a meta-semantics. His meta-semantics is an externalist theory that has it that the meaning of a word is in some way, though how exactly remains unclear, determined by its historical and cultural use. I agree that a theory of conceptual engineering requires a meta-semantics but I disagree that a meta-semantics is best carried out as a theory of meaning. Rather, I will argue in favor of an ecumenical approach.

We have encountered the reason for this in several earlier chapters. We have seen that Haslanger distinguishes the operative concept from the manifest concept and both of those from the target concept. All three of these concepts have some claim to being the meaning of a word. We have seen that Reichenbach distinguishes various possible verification theories of meaning. We have seen Ludlow argue that the meaning of words is systematically underdetermined. Haslanger gave the example of her son who was officially defined as tardy if he was in class after 8:25, but in practice could come in at 8:30, without being marked as tardy. In such cases it is really not clear whether the

meaning of tardy should be taken to include those who come in at 8:30 or not. Based on such examples Haslanger has distinguished the manifest concept of a term from the operative concept. We have criticized conceptual analysis because depending on what exactly you analyze, whose intuitions are taken on board and how you frame the question, different answers may seem to be the meaning of a word. Against Putnam we argued that certainly at most some words can function as names for kinds[118]. Besides the subtle distinctions made by philosophers we may also seek recourse to the English language as standardly used. Consider words like 'meaning' and 'to mean' as they are used. Here there is a triadic verb 'to mean' where somebody means something by saying something. There is the dyadic verb 'to mean' where a word means something and there is the dyadic verb 'to mean' where somebody means to do something. So: 'what does that mean', 'what did you mean by that' and 'I did not mean to do that' all employ the verb to mean in different ways, but related way. Meaning is then applied to words, most commonly nouns and verbs, as well as to sentences, sometimes as an equivalent for truth value, but it is also applied to art or life. Some of these meanings of 'meaning' clearly fall outside the scope of what we are discussing here, but it is not so clear to me where the boundaries lie. It seems as though meaning as understood by semantic internalists is closer to the triadic use of 'to mean', whereas the externalists and analysts focus more on its dyadic use. In addition, the pragmatics of the word 'meaning' are likely an integral part of the of modulating of word meanings in specific contexts that Ludlow describes. This means that in many uses, like 'it's not so clear what that means here', the use of the word functions as an invitation to reflect on and sharpen our use of a word then to refer to any definite semantic phenomenon. All of this comes down to the same general point:

The 'meaning' of a word or sentence is itself a drastically underdetermined concept. Sometimes it is best to interpret it as its manifest meaning for a given person, as the way a given person would paraphrase it, as the aggregate of what many people mean by it, sometimes as the operative concept, sometimes as the nearest natural or social kind and sometimes as yet something else. For general purposes I do not object to using the word 'meaning', as in most cases it does not lead to this type of confusion. I've used 'to mean' and 'meaning' throughout this text. This is because we can modulate what we are after exactly, in the way that Ludlow discusses. In a meta-semantic theory however, we should be eliminativist about 'meaning' or embrace its homonymy. The concept is too ambiguous and a misplaced focus on one thing that might in some contexts plausibly be called 'meaning', risks taking attention away from other important aspects of language use. As a substitute I would propose to use a range of less ambiguous phrases like 'nearest natural kind', 'concept', 'operative concept', 'use by community such and such', 'what flashes before my mind's eye when I say the word', etc. Once we have a theory that tells us where all these pieces are to be placed, I expect there will be little need to discuss 'meaning' separately. While this view might sound radical, I believe it has a close affinity to the views of many of the authors discussed above. Chalmers argues that 'philosophy of x' where x might be 'meaning' may easily devolve into a pointless semantic argument.[119] Reichenbach discusses multiple candidate meanings of meaning, and chides positivists for calling super-empirical concepts meaningless. This is not insightful, he argues, as meaning is ambiguous. Instead, the entailed decisions of each definition of meaning should be considered to see which definition serves our interests best.[120] Carnap defends himself against more descriptive

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[118] Kripke often hedges more, claiming that he is not proposing a theory. See for example Saul Kripke, *Naming and Necessity* (Harvard University Press, 1980), 64. Now my problem is not with theory but with theories of meaning specifically.

[119] David J. Chalmers, "Verbal Disputes," *The Philosophical Review* 120, no. 4 (2011): 515–66, Section 6.

[120] See section 8 of his Hans. Reichenbach, *Experience and Prediction : An Analysis of the Foundations and the Structure of Knowledge* (Chicago [etc.] : University of Chicago Press, 1970).

approaches to language by saying that the descriptive and constructive approach may easily coexist.[121] Haslanger distinguishes various senses of analysis and various concepts related to a word that may be of interest to us when we discuss its meaning.[122]

One reason theories of meaning are difficult to argue for is that there will be an inherent circularity is discussing the meaning of meaning. I could argue that when I say 'meaning' I intent to get across the notion of what I try to get across. The nearest kind or type near 'meaning' may well be the type of the nearest type. Any of these theories might succeed on their own merits and fail on the merits of the others (I am supposing for the sake of argument that they do). The reason is that they talk past each other. A discussion about the meaning of meaning seems to me a semantic discussion of the pointless kind. It is not a word of which pinning down the meaning is of particular importance for any practical purposes, nor does it function primarily in any larger body of theory.

To see the downsides of a meta-semantics in terms of a theory of meaning an example might be helpful. Cappelen argues, based on his externalism that we have very little control over the meaning of words. As an example he discusses the cases in which, to formulate it tendentiously, the United States supreme court has defined that corporations are people, and hence have free speech rights and the like.[123] Cappelen argues that this has not changed the meaning of the words 'person' and 'people'. Instead, the supreme court has merely forced lower courts to use 'person' wrongly. This means that the law treats persons and corporations the same for certain purposes, but it doesn't change the meaning of the word 'person'.[124] I do not care whether you say that the meaning of person has or has not changed. What is important is that the use of a certain word by a highly influential community has changed, with severe consequences. This process is important, probably more important than changing the meaning of 'person' in Cappelen's sense of meaning. We do not even know what meaning in that sense is. Here it is clear how a narrow view on what 'meaning' means, causes Cappelen to set aside the study of a highly relevant phenomenon, in favor of looking at something less important. Now Cappelen is free to study whatever he wants to study but in this case there are two major problems. One is internal: Cappelen, like myself, is interested in approaching language from the perspective not just of describing it but of making it better. He argues that this is compatible with only very limited influence on it, but when that limited influence is self-imposed by narrowing the subject to just meaning in a highly specific sense, he starts missing opportunities to make his theories applicable. While this example is the most egregious, Cappelen's externalism is generally at odds with his normative ambitions. The second problem is that nobody, not even Cappelen himself, knows precisely what meaning in Cappelen's sense is. There is no reason to suppose that drift in meaning in this, still underdetermined sense, is what we could or should change. Certainly the case just discussed points to the fact that something distinct from what Cappelen calls meaning may be more important. This illustrates the general point neatly: it is pointless to reduce our field of view to one specific notion of 'meaning'. Whatever aspect of our language use we can and should change may be the subject of discussion. Even if you want to focus on one specific aspect of language use, say the way language is commonly used in society, you should simply say that that is what currently occupies you. There is no need to argue that it is what

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[121] Paul Arthur Schilpp, *The Philosophy of Rudolf Carnap*, The Library of Living Philosophers ; XI (La Salle, IL: Open Court, 1991), 940.

[122] Sally Anne Haslanger, *Resisting Reality : Social Construction and Social Critique* (New York : Oxford University Press, 2012), 381-406.

[123] We here follow the simplification that Cappelen makes, in order to stay true to his text, but little hangs on this.

[124] Herman Cappelen, *Fixing Language : An Essay on Conceptual Engineering* (Oxford : Oxford University Press, 2018), Chapter 7, Page 6

'meaning' really means. Even if that were true in some non-circular way, it wouldn't add much to your inquiry. For that reason I have tried to be eclectic in my approach so far. I do not think that to argue semantics we should always appeal to either the nearest natural kind or what somebody intended to get across or the operative concept, but rather that any of these might be important to us in a given discussion.

We have approached language through semantic arguments. For that approach it is better to ask: what in the sphere of language use do we have influence over? What is worth changing? If we do indeed aim to discuss how best to argue semantics, and we agree with Cappelen that a constructive, non-descriptive, approach is best, then we better be arguing over something that can and should be changed, at least sometimes. Recall that we concluded that the scale on which we try to change language use has a rather drastic influence on what changes are possible and how. The simplest and most common way to use language is in thought, and here we may make many changes and modulations as we see fit. We may train ourselves to think differently about words by thinking over stock ways to paraphrase certain phrases, relations and distinctions to be kept in mind, paradigm cases that could remind us of something important, etc. On the interpersonal level, what can be changed is what we intend to bring across with a word, in what contexts we use it, as well as how we interpret it. What is more difficult to change but can be influenced to some degree, is how others talk to us and interpret our use of the word. To change this we need to engage with them in explicit talk of what we mean with certain words, and some agreements need to be reached. We discussed with Ludlow that this process is fairly common and that most people do so with ease. In the case of the more institutional definitions, changes in meaning will probably be changes in the methodology for establishing what satisfies a certain word. Consider for example that the methodology for estimating the GDP might be changed in with it, in some sense, the definition of 'GDP' itself. Here changes require elaborate thought by experts and need to actually be implemented by some bureaucratic machine. On the societal level, the level where for example our use of gendered terms is effective, the use of words can in some cases best be changed in tandem with various social kinds. But this takes enormous efforts by a large amount of people. Since, following Haslanger, some words both describe and constitute certain social kinds, we should try to change our language use such that we neither contribute to a pernicious reality, nor disingenuously deny it. What probably cannot be changed at all are natural kinds. We might try to adapt our language use at any of the previously discussed levels to make it coincide better with the natural kinds we think exist, of course, but it will be difficult to engineer natural kinds. Even if we did, the changes made would be linguistic changes only in a derivative sense.

6. Words and Projects

We have so far argued several things. We have noted that many authors for several reasons, have stressed a more systematic approach, where the object of discussion is not the meaning of individual words but of a larger cluster of words. In section 5.2, we saw that this thought takes several forms. Two that are important to distinguish are the following: a semantic argument may be about which concepts to match with which words or it may be about which concepts are relevant at all. If the discussion is of the first type the systematic aspect takes a form in which a change in meaning for several words may lead to superficially strong divergences between systems of claims which on closer look may turn out equivalent. If the discussion is of the second type the systematic aspect takes the form we saw in Kuhn and the theory-theorists, where the system of views and concepts gives further shape to the individual concepts. We would like to discuss more explicitly in what ways a system of this second type might help motivate different conclusions of a semantic discussion. We have, in chapter four, discussed the way that concepts are not just related to views, but also to actions (moves in a language game) and values. For this reason our name for a system will not be 'theory' but 'project'. This emphasizes that we are not just trying to make our concepts 'carve nature at the joints', though that is an important part of it, but we are also trying to set up our concepts in such a way that they allow us to interact with some aspect of reality in a way that seems appropriate to us. Thus a project will need to meet two important demands: the true and the good. The demand of the true is the demand that on some relevant area it represents reality accurately. The views is recommends need to be true and the concepts it employs should categorize those things which allows for useful generalizations. The demand of the good is the demand that the actions and values it recommends and enables are good, or at least not bad. More broadly a project might have contingent goals that those engaged in the project will want to meet, even if doing so is not required or specifically recommended. In section 6.1 we will introduce fully the notion of a project. In section 6.2 we will provide four examples of projects. In section 6.3 we will introduce some terminology specifically useful for discussing projects. In section 6.4 we will discuss the role of projects as middlemen between the true and the good and the specific semantic choices we will end up making.

6.1 The Nature of Projects

In this chapter would like to formulate a proposal for arguing semantics. As we've discussed, there are many aspects of language that depend on larger or smaller groups of people, including how we use words, how we interpret them, how we operationalize them, what we associate them with and more. We may modulate underdetermined words to function better for specific cases or we may wish to introduce whole new concepts. We may attempt to do this individually, as when one uses a non-standard definition for an intricate calculation or proof, or society-wide as is done with standardized units of measurement or for groups of any size in between, such as a teacher who stipulates that for the purposes if his class, species will be distinguished by ecological niche, rather than genetic overlap or common ancestry. There may however be reasons not always to decide how to define on the flip of a coin, but on more substantive principles how we are to use language exactly. Let's take as an example the poverty line, which is a number representing the income below which somebody is considered poor. The World Bank or some local government could define this line to be everyone with an income below one million dollars a year or as everyone who makes nothing at all. Neither of these definitions would be the least bit adequate. Not because they don't describe a genuine concept but because being below the poverty line is supposed to function as an indicator of unacceptable deprivation. This is only one example but there are many cases when some definitions seem absurd, besides the point or in some way inadequate. Hence in a lot of cases, not all definitions or modulations are equal. Some may be misleading for psychological reasons, some may be unwieldy, some may operationalize something in a way that poorly reflects our aims

So, if not all definitions are equal, what then, makes one more adequate than another? To provide a better idea of what we want of a specific definition or modulation I will introduce the notion of a project. A project will be some kind of activity aimed at something with its own terminology. A project specific word, or use of a word, generally relates to the rest of the project-specific terminology as well as to the general aims of the project. The aim of the project, and the constellation of the terminology the project has, gives direction to what kind of definitions we should use. In Wittgensteinian terms a project may be conceived as a language game together with a form of life in which the language game is embedded. It may also be compared to Kuhns paradigms, but the pragmatics involved need not be aimed at research. The definitions aim to flesh out and operationalize exactly what the project is to be, but how to flesh them out is in turn guided by the general point of the project. Such projects may have an assortment of specific terminology but they may also use more general terminology in specific ways. Whenever we have a dispute about a definition, especially when it appears entrenched, it may pay to ask ourselves what is at stake. We should discuss how one definition or another of some word fits in some more general project and why one definition might better serve the purposes of that project and of those undertaking it than the next.

6.2 Some Examples of Projects

I will now introduce four examples of projects. Medical work, poverty reduction, chess and finding a friend in a crowd. These examples will later function as established examples of projects.

The first example will be medical work. Here we have a line of work, research, practices, locations, all geared towards a somewhat fuzzy and shifty but nonetheless recognizable set of aims. To prevent death, mutilation, loss of ability, pain and discomfort through an intricate understanding of the human body and mind. For these aims a variety of specific phenomena are studied and a range of specific terminology exists. A medical professional can distinguish various types of arteries for example. To do so proficiently he needs to know something about the general way the various types and genera relate to one another, what I have called the constellation of the terminology. He also requires factual knowledge about the human body. However, these types are distinguished not just to understand the human body for knowledge's sake alone but also to understand how to heal it. Damage to a small vein in the finger requires different treatment from damage to the aorta. This may play a part in why some distinctions are made and not others, and even in how certain distinctions are made. Sometimes medical categories come to be disputed. This may be because of some discovery, but it may also appeal to the good that the medical practice is supposed to do. When discussing whether autism or gender dysphoria should be considered a mental illness, the relevant matter is not just how we already use the word, nor just whether these conditions are a disease in reality. Common arguments are 'if it is classified as an illness, that allows easier access to professional help' or 'if it is classified as an illness, that may needlessly stigmatize those to whom it applies'. Such arguments relate more to what the medical practice can and should accomplish, than to factual concerns.

For the second example we return to the example of the poverty line. Here it will become clear how an understanding of the project in which a certain concept is embedded can help guide our definitions. Most people will immediately feel that something is amiss if we define somebody to be in poverty if they make less than a million dollars every year. This is because the poverty line is a concept to operationalize a more vague but thicker concept of poverty, which is usually understood as a kind of unacceptable deprivation due to lack of means. This needs to be operationalized because it is widely believed that governments and other organizations should attempt to reduce the amount of poverty. This general institutionalized reduction of poverty may here be taken to be the project.

They require metrics to measure progress and the efficiency of programs. Thus our hypothetical definition of the poverty line fails because it fails to isolate that deprivation which we would find worth reducing. People making $800.000 a year will be fine and need no further help, or at least no help that those fighting poverty are equipped or mandated to give. To use an example that is less comical, various nations have their own poverty line which are defined differently to account for factors such as the local cost of living. This makes sense as long as we understand that the point of the poverty line is not to isolate deprivation of money but of things that one needs a certain amount of money for.

A third example is the game of chess. Here there is the activity of playing the game, the fundamental aims of winning or at least drawing it and the concepts and terminology used to explain the rules and fundamental tactics and strategies of the game together form a project. Here disputes over how to use words exactly may arise in terms of what the rules constitutive of chess should be (is a draw after 50 reversable moves too soon) but also in terms of how to understand strategic and tactical terms like 'threatened piece' or 'endgame'.

Not every project needs to be related to large societal institutions. Many projects may be highly local and may not require broad definitions and a new range of concepts but rather some subtle modulations of the existing lexicon. Let's take for a fourth example a simple dispute about what something means. Alice says to Bob: 'I am going to that store for a bit, could you stay roughly here.' 'Sure', says Bob. When Alice returns she has trouble finding Bob. It turns out Bob is in another store. Alice is annoyed. 'You said you'd stay roughly here.' Bob replies 'I did, I was no more than twenty meters away.' In this dialogue 'roughly here' is certainly very vague and this leads to dispute, and within twenty meters may be a good way to specify what that means. It is better to see what the point was of staying 'roughly here'. Presumably Alice wanted to easily find Bob again, and this was difficult because while Bob was in close proximity he was not in sight. This helps us see that 'in sight from here' is a better rendition of 'roughly here' than 'within twenty meters'.

6.3 Some terminology

In this section I would like to introduce some terminology to help further flesh out the nature of a project.

A category, in its old philosophical usage to be found in thinkers like Aristotle or Kant is a fundamental type of property that things can have or a fundamental form of thought. I will appropriate this terminology, but relativize it to projects. This is not to deny or assert that there are categories in the metaphysical or Kantian sense. Hence, I will speak of the categories of a project. These are the fundamental terms used to define what the project is. Without understanding these terms, the project cannot be understood or participated in. For medical work such categories may be 'body', 'sick', 'suffering', etc. For chess the categories may be 'turn', 'square' 'piece', 'check', 'takes', etc. Kuhn speaks of the entities[125] that populate the universe according to a given theory. Their names would indeed count as categories but the notion would also include the names of fundamental actions, 'to heal', 'to put in check', etc. Wittgenstein speaks of the moves that may be made in a language game.[126] We argued in section 5.2 that many actions, to be performed require us to be able to explicitly discuss the concept that guides the action.

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[125] Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL : The University of Chicago Press, 2012), 128,193, 206.

[126] Ludwig Wittgenstein e.a*., Philosophical Investigations*, 4rd ed., repr., A Blackwell Paperback (Oxford: Blackwell, 2009), 49.

Most projects will have specific thick categories naming fundamental values of the project. For chess, these value-categories would be 'win', 'lose' and 'draw'. For medical work, 'sick', 'health', 'heal', etc would work. Those who participate in the project will generally have to adopt these values in some way, at least instrumentally. It may in some cases be said that some parasitic individuals can participate in a project without embracing its values. You may play chess, without trying to win. Some doctors deliberately harm their patients. Most projects involve other people and the values will most likely be enforced by mechanisms of exclusion, punishment, social pressure and the like. Hence while it will usually not be impossible to recognizably participate in the project while rejecting or counteracting the fundamental values, this will not be made easy. Hence, in any normal situation, the vast majority of those participating in a project will share its values, at least instrumentally.

Often however, the value-categories are insufficiently clear to be actionable. Hence a lot of work is put in formulating criteria for the value-categories. A clear example is the Diagnostic and Statistical Manual of Mental Disorders. This book is used to spell out what exactly counts as a mental disorder and as which mental disorder. Another clear example is the poverty line we referred to earlier. The most important aspect of a criterion is that it makes more precise what the factual conditions are for some category of value without specifically appealing to value. For this reason, criteria are normally empirically measurable but simultaneously debatable. One can measure empirically when somebody is making less than a certain amount of money, but it cannot be decided in the same way whether any particular amount of money is considered to be poverty. The criterion doesn't simply define poverty, it attaches the normative value encoded in 'poverty' to empirical conditions.

6.4 The Role of the project

How and when do projects help us settle disputes that are partially or entirely semantic? In this section I will discuss semantic discussions that can be resolved from within a project and those cases where we need to adjudicate between competing projects or competing versions of the same project. In both cases it will be most sensible to look at this through the lens of the true and the good. A project will have terminology that is aimed at describing the world in a way that is accurate and conducive to some purpose. It will usually be recognizable as a project because a narrow cluster of ideas at the core of the project give purpose and structure to the whole. The internal approach to resolving some semantic dispute is to ask whether one definition or another furthers or captures the goals of the project and whether it fits the systematicity of the project. The systematicity of a project may manifest in various ways. An example is that the quotient between SI units of measurement is usually a power of ten. It might be confusing to introduce squi-meters that are $\sqrt{\Pi}$ meters long and it is convenient that a liter of water ways a kilo under normal circumstances. Similarly, it is convenient to discuss species concepts as a whole rather than defining one category of animals in one way and another category of animals in another. Definitions and categorizations that further the goal of the project can also be distinguished from those that don't. In discussing chess it is important for strategic reasons to distinguish the white from the black squares but not the even from the odd ranks. This explains why one categorization is mentioned at all and the other isn't. When trying to settle a specific semantic dispute one question to ask is: does it further our goals to draw the line here rather than there? We considered earlier the idea of taking poverty to be an income of less than one million dollars per year and rejected this, since this does not coincide with any reasonable interpretation of 'poverty'. We rejected it more specifically because a reasonable interpretation of poverty should be drawn normatively, as a category of something to be reduced. Under no reasonable reading of the project of poverty reduction is it worthwhile to help those who already make hundreds of thousands a year.

However, at some point the notion of poverty, as naively used, gets fuzzy. In a case where there is reasonable doubt about what a criterion should be exactly, appealing to the project or its values need not help, since what the project is and what it values are exactly, will in part be determined by its criteria. Here one may appeal to earlier cases as decisive for where to draw certain lines as is done in the case of jurisprudence. But such cases may not be available or may have been decided in unhelpful or wrong ways. Hence it may sometimes be necessary to appeal to values external to the project itself to determine what you'd like the project to be. In doing this, I am rejecting a constitutivist model, where what is valuable to the project can be settled merely by discussing what the project is. In the same vein, we should not in general expect to be able to settle disputes about any particular topic by finding out how words presently functions. We should rather discuss what a given project should be based on some antecedent idea of what is valuable. A corollary is that a project cannot be worth undertaking, just because it is a project or just because of its internal values. Values external to your project may lead to the conclusion that your project is altogether bad. Slave owners for example may have an elaborate system of terminology and values to make slavery work. They have specific notions of 'runaways', 'appropriate punishment', accompanying theories to dehumanize their slaves, etc. This qualifies as a project in our sense of project, but it is one that should be abandoned. This is even clearer when a project is based on faulty views. There are (more or less) coherent projects of astrology with which the main problem is merely that they are based on all kinds of untrue views.

If there is something wrong with a project however, it may be difficult to say what exactly, without straying from the terminology of the project, either by introducing foreign terminology or by using the terminology of the project in non-standard ways. This straying can happen by redefining the criteria for some of the values or categories of the project. For example, when doctors discuss whether euthanasia best helps the patient, there may be disagreement about what exactly counts as 'helping'. But it may also happen by rejecting some of the values or categories. Nobody believes there is such a thing as phlogiston anymore. As stated, in the limit we can reject an entire project outright. It is not very clear to me where the boundary lies between changing a project and substituting one for another, though this is hardly all that important. The reasons for straying from accepted terminology, categories and values may be even harder to express, and these matter much more. Usually, there are resources in the language beyond the project, but these resources may be part of another, possibly competing, project. A loose advise may be to attempt to become comfortable with the terminology of both projects, but once one is, it is not clear what may be said to adjudicate between the two without explicitly appealing to something, or using terminology that is under dispute, already under dispute. Empirical information or the finding of contradictions may be of some help here. Unfortunately, there is extensive literature on the theory-ladenness of observation. Theory might influence observation both through explicitly influencing interpretation or even acceptance of evidence and through psychological bias[127]. Not only that but when one is used to certain terminology used a certain way, things that to some seem controversial might start to seem definitional and denying those things might seem like a contradiction[128]. Here however, we should be careful not to exaggerate. Theory might influence the interpretation of evidence, but that

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[127] For a general discussion in this subject see: James Bogen, "Theory and Observation in Science," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, Summer 2017 (Metaphysics Research Lab, Stanford University, 2017), https://plato.stanford.edu/archives/sum2017/entries/science-theory-observation/.

[128] Kuhn writes: "In Section X we shall see that the chemical law of fixed proportion, which before Dalton was an occasional experimental finding of very dubious generality, became after Dalton's work an ingredient of a definition of chemical compound that no experimental work could by itself have upset." Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL : The University of Chicago Press, 2012), 78, 131.

only goes so far. Jastrow's famous duck-rabbit can be seen as a duck or a rabbit, or as both, or even as 'that duck-rabbit-picture'[129] but you cannot see it as anything. And contradictions might still be found if the ideas of one project are formulated in its own terms. This means that there are at least broadly constraining factors on which projects can be taken seriously at all, even if some underdetermination of projects by the evidence remains. This much will be familiar from canonical debates in epistemology and the philosophy of science. These problems will be similar when projects differ in their values or their criteria thereof. However, unlike this problem for descriptive discussion there isn't anything like empirical evidence. There are at present no broadly agreed upon standards of argument or evidence in moral epistemology except perhaps non-contradiction and incredulous stares. Hence, in the limit case a difference between two competing projects or versions of a project can only be resolved by moral philosophy which is not the subject of this thesis. What does relate to the subject however, is that moral philosophers might worry about similar forms of talking past one another as everyone else and that this might happen in very similar ways to the semantic arguments in any other field of discussion. In such cases it may be worth to try to approach the semantic argument on the level of a project, rather than on the level of individual words for much the same reasons as when the semantic argument related to a descriptive issue.

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